



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

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1 GGACACTGAC ATGGACTGAA GGAGTAGAAA GCTGGAGTGA CACTGCAGTG
51 GGCTTCTCCG TAGCCCCAGC CTTCAGGCTG CGCAGCCCCT AACCTGCCGG
101 CACCGCTTTT GGGAAGCAGC TTGGCTCTTC CATCTCCCCA AGCCTTCCTC
151 TCCATCCTTT CATCCACCCC TCGCCGATCT TACTTTTCT TTTACCCACG
201 GGGCCGCGGC CGGCCACCCC CTGGCCGGTG CAAACACCCA AGCCCTCTCC
251 AGTTCTCCCC CAAGCTAATA TTTTCCCACC TGTCTTTTTC TGGGGTTTCT
301 CCACGAGCCA GTCCAAGGCT CCCCATCCT CGGAAATTGT TTTGTTGGAC
351 TGCTAAACCG AGGCGTGTA AGCTTGAGGA CTTTATTATT ATTTGGGTTT
401 TTTTCATTTC TTCCCCTTCT GGGCAACGAA GCAATGAAAT TTCCAATCGA
451 GACGCCAAGA AAACAGGTGA ACTGGGATCC TAAAGTGGCC GTTCCCGCAG
501 CAGCACCGGT GTGCCAGCCC AAGAGCGCCA CTAACGGGCA ACCCCCGGCT
551 CCGGCTCCGA CTCCAACCTCC GCGCCTGTCC ATTTCTCTCC GAGCCACAGT
601 GGTAGCCAGG ATGGAAGGCA CCTCCCAAGG GGGCTTGCAG ACCGTCATGA
651 AGTGGAAGAC GGTGGTTGCC ATCTTTGTGG TTGTGGTGGT CTACCTTGTC
701 ACTGGCGGTC TTGTCTTCCG GGCATTGGAG CAGCCCTTTG AGAGCAGCCA
751 GAAGAATACC ATCGCCTTGG AGAAGGCGGA ATTCCTGCGG GATCATGTCT
801 GTGTGAGCCC CCAGGAGCTG GAGACGTTGA TCCAGCATGC TCTTGATGCT
851 GACAATGCGG GAGTCAGTCC AATAGGAAAC TCTTCCAACA ACAGCAGCCA
901 CTGGGACCTC GGCAGTGCC TTTTCTTTGC TGGAAGTGTC ATTACGACCA
951 TAGGGTATGG GAATATTGCT CCGAGCACTG AAGGAGGCAA AATCTTTTGT
1001 ATTTTATATG CCATCTTTGG AATTCCACTC TTTGGTTTCT TATTGGCTGG
1051 AATTGGAGAC CAACTTGGAA CCATCTTTGG GAAAAGCATT GCAAGAGTGG
1101 AGAAGGTCTT TCGAAAAAAG CAAGTGAGTC AGACCAAGAT CCGGGTCATC
1151 TCAACCATCC TGTTTATCTT GGCCGGCTGC ATTGTGTTTG TGACGATCCC
1201 TGCTGTATC TTTAAGTACA TCGAGGGCTG GACGGCCTTG GAGTCCATTT
1251 ACTTTGTGGT GGTCACCTG ACCACGGTGG GCTTTGGTGA TTTTGTGGCA
1301 GGGGAAACG CTGGCATCAA TTATCGGGAG TGGTATAAGC CCCTAGTGTG
1351 GTTTTGGATC CTTGTTGGCC TTGCCTACTT TGCAGCTGTC CTCAGTATGA
1401 TCGGAGATTG GCTACGGGTT CTGTCCAAAA AGACAAAAGA AGAGGTGGGT
1451 GAAATCAAGG CCCATGCGGC AGAGTGGAAG GCCAATGTCA CGGCTGAGTT
1501 CCGGGAGACA CGGCGAAGGC TCAGCGTGGA GATCCACGAT AAGCTGCAGC
1551 GGGCGGCCAC CATCCGCAGC ATGGAGCGCC GGCGGCTGGG CCTGGACCAG
1601 CGGGCCCACT CACTGGACAT GCTGTCCCC GAGAAGCGCT CTGTCTTTGC
1651 TGCCCTGGAC ACCGGCCGCT TCAAGGCCTC ATCCAGGAG AGCATCAACA
1701 ACCGGCCCAA CAACCTGCGC CTGAAGGGGC CGGAGCAGCT GAACAAGCAT
1751 GGGCAGGGTG CGTCCGAGGA CAACATCATC AACAAAGTCG GGTCCACCTC
1801 CAGACTCACC AAGAGGAAAA ACAAGGACCT CAAAAAGACC TTGCCCAGAG
1851 ACGTTTCAGAA AATCTACAAG ACCTTCCGGA ATTACTCCCT GGACGAGGAG
1901 AAGAAAGAGG AGGAAACGGA AAAGATGTGT AACTCAGACA ACTCCAGCAC
1951 AGCCATGCTG ACGGACTGTA TCCAGCAGCA CGCTGAGTTG GAGAACGGAA
2001 TGATACCCAC GGACACCAA GACCGGGAGC CGGAGAACAA CTCATTACTT
2051 GAAGACAGAA ACTAA (SEQ ID NO:1)
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FIGURE 1A



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FEATURES:

5'UTR: 1 - 433
Start Codon: 434
Stop Codon: 2063
3'UTR: 2066

HOMOLOGOUS PROTEINS:

Top 10 BLAST Hits:

			Score	E
gi 10863961 ref NP_066984.1	potassium channel, subfamily K, me...	1054	0.0	
gi 8452900 gb AAF75132.1 AF196965_1 (AF196965)	potassium channe...	1037	0.0	
gi 6754432 ref NP_034737.1	potassium channel, subfamily K, mem...	486	e-136	
gi 5712621 gb AAD47569.1 AF129399_1 (AF129399)	TREK-1 potassium...	483	e-135	
gi 9622335 gb AAF89743.1 AF171068_1 (AF171068)	two-pore domain ...	483	e-135	
gi 4101566 gb AAD01203.1 (AF004711)	two-pore potassium channel...	473	e-132	
gi 7705562 ref NP_057695.1	potassium inwardly-rectifying chann...	318	9e-86	
gi 6680540 ref NP_032457.1	potassium channel, subfamily K, mem...	309	4e-83	
gi 9988112 emb CAC07336.1 (AL136087)	dJ137F1.2 (novel member o...	201	2e-50	
gi 4504851 ref NP_003731.1	potassium channel, subfamily K, mem...	180	4e-44	

BLAST to dbEST:

	Score	E
gi 3400036 /dataset=dbest /taxon=9606 ...	293	6e-77

EXPRESSION INFORMATION FOR MODULATORY USE:

library source:

Expression information from BLAST dbEST hit:

gi|3400036 Human testis

Expression information from PCR-based tissue screening panels:

Human bone marrow
Human colon
Human fetal brain
Human fetal heart
Human fetal liver
Human heart
Human kidney
Human pancreas
Human testis

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FIGURE 1B



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1 MKFPPIETPRK QVNWDPKVAV PAAAPVCQPK SATNGQPPAP APTPTPRLSI
51 SSRATVVARM EGTSQGGLOT VMKWKTVAI FVVVVVYLVLT GGLVFRALEQ
101 PFESSQKNTI ALEKAEFLRD HVCVSPQELE TLIQHALDAD NAGVSPIGNS
151 SNNSSHWDLG SAFFFAAGTVI TTIGYGNIAF STEGGKIFCI LYAIFGIPLF
201 GFLLAGIGDQ LGTIFGKSIA RVEKVFRKKQ VSQTKIRVIS TILFILAGCI
251 VFVTIPAVIF KYIEGWTALE SIYFVVVTLT TVGFGDFVAG GNAGINYREW
301 YKPLVWFVIL VGLAYFAAVL SMIGDWLRVL SKKTKEEVGE IKAHAAEWKA
351 NVTAEFRETR RRLSVEIHDK LQRAATIRSM ERRRLGLDQR AHSLDMLSPE
401 KRSVFAALDT GRFKASSQES INNRPNNLRL KGPEQLNKHG QGASEDNIIN
451 KFGSTSRLTK RKNKDLKCTL PEDVQKIYKT FRNYSLDEEK KEEETKMCN
501 SDNSSTAMLT DCIQQAHALE NGMIPTDTKD REPENNSLLE DRN (SEQ ID NO:2)

FEATURES:

Functional domains and key regions:

[1] PDOC00001 PS00001 ASN_GLYCOSYLATION
N-glycosylation site

Number of matches: 7

1	149-152	NSSN
2	152-155	NNSS
3	153-156	NSSH
4	351-354	NVTA
5	483-486	NYSL
6	503-506	NSST
7	535-538	NNSL

[2] PDOC00004 PS00004 CAMP_PHOSPHO_SITE
cAMP- and cGMP-dependent protein kinase phosphorylation site

361-364 RRLS

[3] PDOC00005 PS00005 PKC_PHOSPHO_SITE
Protein kinase C phosphorylation site

Number of matches: 12

1	7-9	TPR
2	45-47	TPR
3	7-9	TPR
4	45-47	TPR
5	51-53	SSR
6	105-107	SQK
7	331-333	SKK
8	359-361	TRR
9	376-378	TIR
10	410-412	TGR
11	455-457	TSR
12	459-461	TKR

[4] PDOC00006 PS00006 CK2_PHOSPHO_SITE
Casein kinase II phosphorylation site

Number of matches: 8

1	125-128	SPQE
2	155-158	SHWD
3	267-270	TALE
4	334-337	TKEE
5	416-419	SSQE
6	469-472	TLPE
7	485-488	SLDE

FIGURE 2A



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8 537-540 SLLE

[5] PDOC00008 PS00008 MYRISTYL
N-myristoylation site

Number of matches: 8

1	62-67	GTSQGG
2	66-71	GGLQTV
3	148-153	GNSSNN
4	167-172	GTVITT
5	212-217	GTIFGK
6	290-295	GGNAGI
7	440-445	GQGASE

Membrane spanning structure and domains:

Helix	Begin	End	Score	Certainty
1	81	101	2.130	Certain
2	165	185	1.764	Certain
3	193	213	2.281	Certain
4	244	264	2.380	Certain
5	275	295	1.436	Certain
6	310	330	2.210	Certain

FIGURE 2B



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BLAST Alignment to Top Hit:

>gi|10863961|ref|NP_066984.1| potassium channel, subfamily K, member
10 [Homo sapiens] >gi|10198115|gb|AAG15191.1|AF279890_1
(AF279890) 2P domain potassium channel TREK2 [Homo
sapiens]
Length = 538

Score = 1054 bits (2697), Expect = 0.0
Identities = 526/526 (100%), Positives = 526/526 (100%)
Frame = +1

Query: 52 VAVPAAAPVCQPKSATNGQPPAPAPTPTPRLSISSRATVVARMEGTSQGGGLQTVMKWKTV 231
Sbjct: 13 VAVPAAAPVCQPKSATNGQPPAPAPTPTPRLSISSRATVVARMEGTSQGGGLQTVMKWKTV 72

Query: 232 VAI FVVVVVYLVTGGLVFRALEQPFESSQKNTIALEKAEFLRDHVCVSPQELETLIQHAL 411
Sbjct: 73 VAI FVVVVVYLVTGGLVFRALEQPFESSQKNTIALEKAEFLRDHVCVSPQELETLIQHAL 132

Query: 412 DADNAGVSPIGNSSNNSSHWDLGSAFFAGTVITTIGYGNIA PSTEGGKIFCILYAIFGI 591
Sbjct: 133 DADNAGVSPIGNSSNNSSHWDLGSAFFAGTVITTIGYGNIA PSTEGGKIFCILYAIFGI 192

Query: 592 PLFGFLLAGIGDQLGTIFGKSIARVEKVFRKKQVSQTKIRVISTILFILAGCIVFVTIPA 771
Sbjct: 193 PLFGFLLAGIGDQLGTIFGKSIARVEKVFRKKQVSQTKIRVISTILFILAGCIVFVTIPA 252

Query: 772 VIFKYIEGWTALESIFYFVVVTLTTVGFGDFVAGGNAGIN YREWYKPLVWFILVGLAYFA 951
Sbjct: 253 VIFKYIEGWTALESIFYFVVVTLTTVGFGDFVAGGNAGIN YREWYKPLVWFILVGLAYFA 312

Query: 952 AVL SMIGDWLRVLSKKTKEEVGEIKAHAAEWKANVTAEFRETRRRLSVEI HDKLQRAATI 1131
Sbjct: 313 AVL SMIGDWLRVLSKKTKEEVGEIKAHAAEWKANVTAEFRETRRRLSVEI HDKLQRAATI 372

Query: 1132 RSMERRRLGLDQRAHSLDMLSPEKRSVFAALDTGRFKASSQESINNRPNLRLKGPEQLN 1311
Sbjct: 373 RSMERRRLGLDQRAHSLDMLSPEKRSVFAALDTGRFKASSQESINNRPNLRLKGPEQLN 432

Query: 1312 KHGQGASEDNI INKFGSTSRLTKRKNKDLKKTLPEDVQKIYKTFRNYSLDEEKKEEETEK 1491
Sbjct: 433 KHGQGASEDNI INKFGSTSRLTKRKNKDLKKTLPEDVQKIYKTFRNYSLDEEKKEEETEK 492

Query: 1492 MCNSDNSSTAMLTDCIQQAELNGMIPTDTKDREPENNSLLED RN 1629
Sbjct: 493 MCNSDNSSTAMLTDCIQQAELNGMIPTDTKDREPENNSLLED RN 538 (SEQ ID NO:4)

>gi|8452900|gb|AAF75132.1|AF196965_1 (AF196965) potassium channel
TREK-2 [Rattus norvegicus]
Length = 538

Score = 1037 bits (2653), Expect = 0.0
Identities = 520/543 (95%), Positives = 529/543 (96%), Gaps = 1/543 (0%)
Frame = +1

Query: 1 MKFPIETPRKQVNWDPKVAVPAAAP-VCQPKSATNGQPPAPAPTPTPRLSISSRATVVAR 177
Sbjct: 1 MKFPIETPRKQVNWDPKVAVPAAAPVCQPKSATNGHPVP-----RLSISSRATVVAR 54

FIGURE 2C



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Query: 178 MEGTSQGGGLQTMKWKTVVAIFV VVVVYLVTGGLVFRAL EQPFESSQKNTIALEKAEFLR 357
MEG SQGGGLQTMKWKTVVAIFV VVVVYLVTGGLVFRAL EQPFESSQKNTIALEKAEFLR
Sbjct: 55 MEGASQGGGLQTMKWKTVVAIFV VVVVYLVTGGLVFRAL EQPFESSQKNTIALEKAEFLR 114

Query: 358 DHVCVSPQELETLIQH ALDADNAGVSPIGNSSNNSSHWDLGSAFF FAGTVITTIGYGNIA 537
DH+CVSPQELETLIQH ALDADNAGVSP+GNSSN+SSHWDLGSAFF FAGTVITTIGYGNIA
Sbjct: 115 DHICVSPQELETLIQH ALDADNAGVSPVGNSSNNSSHWDLGSAFF FAGTVITTIGYGNIA 174

Query: 538 PSTEGGKIFCILY AIFGIPLFGFLLAGIGDQLGTIFGKSIARVEKVFRKKQVSQTKIRVI 717
PSTEGGKIFCILY AIFGIPLFGFLLAGIGDQLGTIFGKSIARVEKVFRKKQVSQTKIRVI
Sbjct: 175 PSTEGGKIFCILY AIFGIPLFGFLLAGIGDQLGTIFGKSIARVEKVFRKKQVSQTKIRVI 234

Query: 718 STILFILAGCIVFVTIPAVIFKYIEGWTALES IYFVVVTLTTVGFGDFVAGGNAGINYRE 897
STILFILAGCIVFVTIPAVIFKYIEGWTALES IYFVVVTLTTVGFGDFVAGGNAGINYRE
Sbjct: 235 STILFILAGCIVFVTIPAVIFKYIEGWTALES IYFVVVTLTTVGFGDFVAGGNAGINYRE 294

Query: 898 WYKPLVWFWILVGLAYFAAVLSMIGDWLRVLSKKTKEEVGEIKAHAAEWKANVTAEFRET 1077
WYKPLVWFWILVGLAYFAAVLSMIGDWLRVLSKKTKEEVGEIKAHAAEWKANVTAEFRET
Sbjct: 295 WYKPLVWFWILVGLAYFAAVLSMIGDWLRVLSKKTKEEVGEIKAHAAEWKANVTAEFRET 354

Query: 1078 RRRLSVEIHDKLQRAATIRSMERRRLGLDQRAHSLDMLSPEKRSVFAALDTGRFKASSQE 1257
RRRLSVEIHDKLQRAATIRSMERRRLGLDQRAHSLDMLSPEKRSVFAALDTGRFKASSQE
Sbjct: 355 RRRLSVEIHDKLQRAATIRSMERRRLGLDQRAHSLDMLSPEKRSVFAALDTGRFKASSQE 414

Query: 1258 SINNRPNRLRLKGPEQLNKHGQGASEDN IINKFGSTSRLTKRKNKDLKKTLPEDVQKIYK 1437
SINNRPNRLRLKGPEQLNKHGQGASEDN IINKFGSTS+LTKRKNKDLKKTLPEDVQKIYK
Sbjct: 415 SINNRPNRLRLKGPEQLNKHGQGASEDN IINKFGSTSRLTKRKNKDLKKTLPEDVQKIYK 474

Query: 1438 TFRNYSLDEEKKEEET EKMCNSDNSSTAMLTDCIQQAELNGMIPTDTKDREPENNSLL 1617
TFRNYSLDEEKKE+ET EKMCNSDNSSTAMLT+CIQQ AE+ENGM+P DTKD+ ENNSLL
Sbjct: 475 TFRNYSLDEEKKEDETEKMCNSDNSSTAMLT ECIQQQAEMENG MVPMDTKDQGLENNSSLL 534

Query: 1618 EDRN 1629
EDRN
Sbjct: 535 EDRN 538 (SEQ ID NO:5)

Hammer search results (Pfam):

Model	Description	Score	E-value	N
PF00914	Transmembrane region cyclic Nucleotide Gated	17.5	0.00072	2

Parsed for domains:

Model	Domain	seq-f	seq-t	hmm-f	hmm-t	score	E-value
PF00914	1/2	161	201 ..	142	182 ..	15.7	0.0023
PF00914	2/2	271	286 ..	143	158 ..	8.0	0.33

FIGURE 2D



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1 CCTAAGGGTG CAGTTCCTGC CACAGGAATT TGCCTTGGAC AGTGAACTAA
51 TTCCCCAATG CAGACCCAG AACACAACCA TAGGTCAGTT CATTTTGCAA
101 AGGAGGAGGG CCTGGAGGCT TGGAAAATAT CGTATTTAGA CCTTCATTAC
151 CCAAACGAAC CCATGGGACA GGTTTCAGGGT CAGATTCATG GGTCCCAGGA
201 CTGGATGAGC TCACAAGGTT CTGGCATGGA GAGCATGGAC CTTTGTGTCA
251 ACAAACTTGG GTTTGAATCC TCATATCGTG ACCTTGGGAA TGTTTCTTTA
301 TCTCTCTGAG CTTTGATCTT CTCATCTGTA AAAGGAGGCC AGTTACAGCT
351 TCTGCAAAAT GATCTAACAA AGATGAATGG AGAGGAAATA TGAGATGGTG
401 AGGGGGAATT CAGTAAATGT CAATCTTGCC TCCCCGTGCT CTGAGGACTC
451 AGGAGAGGGT GTCTTTCTCT GCTGAAGCCC CTCTCTGACT CTGATGCATG
501 TAAAAACAT TGTATTGCAG TGACTGTGCT AGAGTCCAGC TGTCCGTGAA
551 CAGTTAAAGA GAAGAGCGCA GAGGGAGGTT CGAAAGCCTT TCTTAGAAGC
601 ATCTCCCTCT GGACTTGAGA ACAGAAATTA CATAACACT GGTGTCTCGG
651 GGCATGGCTG GGAGAAGCAG AGATTCCTTG TTTGTTTGAT TTCTATGTCT
701 TAGCCATCCT GAGATCCTTA GTAGAGAGAG GCAAAGTGTG GTTACAGAGT
751 CCAGGGAAGA TGGTTCGTAA GCACCCGGA ACCTGCCTAA AGGGCTGAAG
801 AGTCAGAGTA GCACCATCAG ATTGGTACCA GTTTTGCCTG AACGGGGTTT
851 GCAGAGAAAT CAGGGCTCCA GCCTGGGGTG CCTGTGACAG CCCAGTGACA
901 AAGCACTCAC CTTTCCCACA GACCACAGCG GACCTCTGTA GGTCTTGCTC
951 TTGGACTCAG AAACCTTGAT GTGATAGTGA GGGATGGATG GTGAGAAAGA
1001 TGCTGCTGAC ACAGGGCTCC CCAGAAGCCT CAAGGTGCCG TAGAGTAGCA
1051 TGCAACTTAG AGATCAGCTG CTAGTGTGGG ATTTTAGGAC CCCAGCTGGC
1101 AGGCATAGGA ATGAGCTGGG CAATTTCTAT GCGTAAGTAA AGGCAACAAC
1151 AATCTAACAG GACCTTATGG CACTAGATAG TAAGCCCAT GAAGCAAGA
1201 TCTCTGTCTT GTTCTCTGCC ATATGGCCAG CACATAGCAC AGTGATGGCA
1251 CTTGGAAGGG GTTCAATATA TATGTTGAAT GAACAACAAA TTTTAGTAAC
1301 CTTATCTGGA AGCCAGAGTA GGGGTTTAAA CTACTTCCTA TCCAACACTG
1351 CAGCATGCAA TTCATGTCTT CATTTAGCAA GTATTTCTTG AGCACCTACT
1401 ACGTGTAAAG CTCCTGTGCG AGGCATCCGA AGCAATTTGT CAGCATCATT
1451 CATGTTGATA CTCGGAGTGA CCCGTTCAAG AGCACCTCAG CACCACCTGG
1501 CTTTTCTGAA GACTGAGGCC CCACCACAAA CCCCTGTGGG GCTTCAAGCA
1551 GGGGCAGTGA GAGGGCGTTA GACGAATGCT CCAGGTTTAG CCCCTTTCCG
1601 GGAACAGGTC TGGGTCCCTT CGCATCTGCC CTGCTGGTCC CAGGATCCCG
1651 GGGCCGCCGC TTCCGGGAGC TGCCGGGTCT TGGCAACTCC GCTTTCCTCC
1701 GGGGGCCCCC GTGCCTCTCT CAAGCCTCCT TTCCAGCCAA CGACCAGCGG
1751 CCCAGTCCG GCTGCAGGTA GCTGGGGAAG GGACCAAGCT GTGCCTTGGG
1801 AGCGAGCTTC CCCGGGCGGG GAGAGCGCAG CAGATGCGGA GCGGTCCCAG
1851 AACAAAAGGC TCATGGCTGG CACGGGCTC CTTGGAGTGC GGCGGGGACG
1901 TGGGTTCCGG ACTCAGCGA GAGAGCCAGA CGCGGGAGGA AAAAAATGA
1951 AGTGAGAAAA GAGAAGGAGG GAGAGCTCAG GGTGAGAGCG GTGAGAAGAG
2001 GTGACCCGGA GCGCAGGTC TGCGGCGGAG CCGCAGCGGC CCTTCTCCG
2051 CCTCTTGCA GGCCTTCCAG GCAACCAAGC GTGTCTCCGG CTGCAACTCC
2101 AGCAAGCGCG CCGCTGCCGC CTCCACGCCC GCGCGCCGGC CGGCCGAGCC
2151 AGTAAGTAGC GCGCGCCCA CCGCTCGTTC CCCGCCCTC CGCGGCTTCC
2201 CCGCCACCGC CCACCGCCTC CCGCCGCCCC GCGGGCAAGT CCGCGACCGC
2251 CTCCCGCTGC CCCGAGCCGG GTGCCGGGGG CTCAGCGCGC CTTCCCAGCT
2301 GGGAGCCTCG GTCCGCTGCT CGCCCTGCTC CTCTTGCCG GGGCGCGCG
2351 TCTGGGGCGC GCCCGGGGA GGGTCGCCCT CGCCGCGCGC TGCCCGGGCG
2401 CCGCGCCACC CCTACATCCA ATGGCTTTCG GGGAGCGGGA AGTGGGGGGC
2451 GTCGCGGGG GCGAGGAGCC GCGGCCGGG TGGGCGGTGT GCGCTCAGCG
2501 CCGCCGAGCG AGGCTGACGT GCCCGCCCA GCGCGGCCG GGGAGTGTGT
2551 GTGCGGGTGT GTGTGTGCGG GAGTGTGTGC GCACACGCT TCGGGGGCTG
2601 GAGTGACACT GCAGTGGGCT TCTCCGTAGC CCCAGCCTTC AGGCTGCGCA
2651 GCCCCTAACC TGCCGACACC GCTTTTGGGA AGCAGCTTGG CTCTTCCATC
2701 TCCCAAGCC TTCTCTCCA TCCTTTCATC CACCCCTCGC CGATCTTACT
2751 TTTTCTTTTA CCCACGGGGC CGCGGCCGGC CACCCCTGG CCGGTGCAAA
2801 CACCAAGCC CTCTCCAGTT CTCCCCAAG CTAATATTTT CCCACCTGTC
2851 TTTTCTGGG GTTCTCCAC GAGCCAGTCC AAGGCTCCCC CATCCTCGGA
2901 AATTGTTTTG TTGGACTGCT AAACCGAGGC GTGTAAAGCT TGAGGACTTT
2951 ATTATTATTT GGGTTCCTTT CATTTCCTCC CTTCTGGGC AACGAAGCAA
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FIGURE 3A



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3001 TGAAATTTCC AATCGAGACG CCAAGAAAAC AGGTGAACTG GGATCCTAAA
3051 GGTGGGTGTT TCCTACTTTT GGCTGCCCTC GCCCTGCCTC TGTCTCCGGC
3101 GTGTGCGCGC TTCCTTGAGT GGAAGCACTC TTGCTTCTGG CAGCGTGTGT
3151 CCTGAGGCTG GGAATGCGC CTGGGAACTG CAGCGCGGGT GGGAGGAGGG
3201 CGGAGGCAGC GTGGGTTCGG AACCCAGATA GTGCCTGTCA TTACCACATA
3251 ATCATTGTCC CTCCTAGATT GTCTCCAGAT CTATTTAGAT AGACCAAGCC
3301 GACTGTTTGG TTTGAAATTG CAAGTGTCCG TATTTGCTTT TGACTTTGAG
3351 TGTGCGAGTG TGTGTGTGTG TGTGTGTGTG TGTCTTTGT TTCTGGTGAT
3401 CTTTGTCTCT CTGGCAGATG GGTGGGGTGC TTCCCCCTGG ACCTGGAGCT
3451 GCGCCGCGATG CCGGGGTGTC CTCAGTGGGA AAGGTTTCCT GGCAGCAAGT
3501 GGGGCTCGAG TTGCAGCAGC CGTCCCTAGG GGTGGGCCGT TCTCGCAGGG
3551 CATGCAGAAAT AATGGAGCCC ACAGGGCCTC CTGAGTCTTC GTTCAATCTT
3601 ATTACCAAAC CTAGCAGCTA GTTAGGCTCA GGTCAGAGTA GAAGCAGGAG
3651 GAGGGGTGGT TTGTGAGAAG GGTGGGGCTG GCAAGGCATA GGGGAGGGGC
3701 ACGAAGTGTG CCCGCCCAAG CAATGGTGTG GTTTGTCATG TTTTACGAAT
3751 GTTGGACCAG GTTTCATCCA CGCAAAAGGG AGGGATTAAG ACGGATTTGT
3801 GTGTGCCTAG CGTCGGCCAC CGTGTCTGTA ATTAGCATAC AGATGTTAAG
3851 GCTCCAAGGG AGTGATCAGT ATGAGAGCAG AACAAGTTGG AACCGCGTGT
3901 CCAGTTGTGA CAAGAATGCT CTTTAGCAAT TCTTGTAGCT CATCTGACGA
3951 CTGTGTCAGG CTAGGCAACG CCTCTGTGTG TATTGGAATT GAAATTTGTT
4001 TATTTGGGGT GCGTGTGTGT TTAATGTTCT TTATGAGCGC ATTTCTTCTT
4051 TTTCTCCAGA CTGGAAAAGAA GAAACCATCT TATTTGTGTA GTAAATGTCT
4101 TAGGAATTGA CTGGCTATTG AAGAGTGAGT GAAGAGATAC TGCCTTTTGA
4151 AAACACTGAG GCTGTTACAT CTTAAATACA GCCCAAACCT TCTATTTTGT
4201 CTCTACTTGA AATCTCTGGA AATATGGAGG TGTGCCTTGG CTTTTTTGGG
4251 GGGAGAAATCC CTGAAAAGCA TATTTGTAA ATACCTATTA CATGCTAAAC
4301 ACTGTCTTAA GCTCTGGAGA TACAGTCAGA ACAGGAAAGA TAAAAGCTCT
4351 GACTTGGAGT TTACAGTGAG GGAGACAGAC CTAAATCAAT TCCATGGAGG
4401 AATGCATAAT TCAAAGTTTA TGTATGCTCC AGGGAGAGCA TCAGAGGTTT
4451 AAGAAAGTGT CTGATAGAAG AGATTGACAA GGACCAGAGA AGGCTTCCCT
4501 GAGGACATGA CACTTGGACT TAGGCCTGGA GGATGTATAG GAGTTAATTG
4551 TCTAAGGAGG AGGGGAATTG TTGCAGAGA GGGAAACAGCA AGTGCAAAGG
4601 GCCTGAGGCA GAAGAGGTAT GTGTATATGA TGAAGTAAA GGAGGTTCCC
4651 ATGGCTACGG CAGAGTGAGT GAAGAGGTAT TGCCTTTTTT AAACACCCAG
4701 GCTGTTATAC TGTAAATACA GCACAAACCT TTCATTTGT CTCTATTGTA
4751 AACCTCTGGA AATACGGAAG TGTGCCTTGG CTTTCTTTTG GGAAATCCCT
4801 GAAAAATGTA TTTATCCCTA GCAGAGAGCA AGAGGGCTTG TGTTTTGAGA
4851 TATGACTGGG GGATCCACAG GCGAGACGCC CCCCTCCAAG CCCTGTGTTG
4901 TTGGAGGTGG GGTAGCATTG TGGGGTTGGA AGAGTATAGT ATTTATCTAA
4951 AGCCAATGAA GAGTTTCAAG ACGAGGAGTG ACATGATTTG AGCTAAGTTT
5001 CAAAACAAGT CCTGTGTGGC TCTTGTGGAT GTAGGGGACC AGATACAATG
5051 GTAGCATGGG CTAGGGTGGT TGCTGTGGGC ATGGAGAAGC GGACGGAGTA
5101 GAGAGCTGTA GAGGACGTGA AATCAACAGG CTTTGCATGA ATAATGTGTG
5151 GAAGTGAAGT GAAGGAATTG GAATGACTGA GATGGCAGCC AGGGCAGGAC
5201 CAGTCTTGAA GGAAAGCTCA TGAGTTCAAT CTAGGACTTG TTGAGTAGGA
5251 CATGTCCCCA AGCCATCCAA GGGGTGTGTT AGGTGGGCAG CTGTCTAAGT
5301 GCTGGGGTCA GGATCTTCAA GGAACAGAGG GAGTACCGTG AGACTGATTT
5351 TGTGAAGCTG GCTTTGTGTT TTAAGGTACA TTTCTGTGTG ATCATATTCT
5401 TATATATTCA TGTTACAGTG ATGAACACAG ACAAATTTTA CACATTTTAC
5451 AGCCTGACAC AGTGAAGAAA AGCATACAAA TAGCACCTTC AGTTACAACC
5501 AGTGGTGCTA AAAATGAAAA AAACCTCAAT AAAAATAACA ACATTTAATG
5551 AGCAACCAAT GCATGCCAGG TGCTTTATGT ACATTGTTTC ATACAATTAT
5601 TTTCACAATA CTTATCTGAT GGTATAAGTG TTATAGTTCC ATTTGGCACT
5651 TGATTGCCAT CATGACACCA CTAATCTGCC TTCCAGTGGG GTTGCTCTGA
5701 CTTTGTGCAC AGTTATTCCC AAAGGTAGGG GTGACAGTAG TCTTTTCTA
5751 GCCAGGGGAT GGAGGAGGGA AGAGAGTGAG GAGTGAGGTG GCATATCTCT
5801 TATCTGTATA GAATTATGTG CTAGGTGCTC TTCTAATGTT TTACATGTGT
5851 TAATTTAATC TTCACAAACA TTTTAGGAGA AAGGTATTAT CCTAATTTTA
5901 CAGATGAGTT AACTGAGGAA CAGAGAGTTT GAGTAACTTG CCCAAGGTTG
5951 CACAGCTAGT AGGACAAGAT TAGAATCTGG GCTCTTAAAC ACTCTTCAAG

FIGURE 3B



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

```
6001 TCTGTGTTTC TTATTGGGAC TTTTGGCTTT TGCCTGGTAA GGTTCCCAAA
6051 GCTCAGGAAG TGGAGAAGCT TGTTCGAGG AGGAAAAGGA GAAGAGAGAG
6101 GATGAAGAGG AAAAGGGAAT GGAATAGGAG GAGGATAAAA GAGAGGAAGA
6151 GAGAGGAGGA AGGAGAAGAG GAGACAGTGG CTCAAGCTTA CCCTACTTGT
6201 TCCTTTCTCT ACTAACCTAT TCAGACAATA ATCTTTTCAT TTCCATGTCT
6251 GATGGGCAAG TCAGTGACTA CTGGACAGAG TTTGGGTCTC TGTTTTGGAG
6301 GTTCTGGATT ACACAGACCA AATGTGTTTA GCAGGAAAAA GATGAAGGGG
6351 AGCCCAGCAG TATTAGGGGA AAGTGGAGAG ACAGTTCACA TTACTTGGAC
6401 TGTAGGATAT GTCTATCAAC AGACATGACC CTTCAGGCGG AGGTGCTCTC
6451 ATGGGTCTCT GAAGGCAGTT GTAATTATAA TGTTTTCTT ACAGCCTTAT
6501 TACCCTACAA TTTAATAGCA AAAAATGAAG GTGGTTTGAG AATAGATTGG
6551 TTTGGATAGC ATTTGGGTGG ATTAAGCAAA GCATTGTCAA GAGGTGTAGG
6601 TAAAAACAAG ACCCAAATAT AAAATGGTTC ATCTCTGGTG AGCTATGGCC
6651 TTCCTTCATA TTCATGGAAC AGAGACTTCT ACGAAGAGCG TTACTGTTTG
6701 TGTAGGACCT ACCACAAGTA GATTGGTTCT AAGTCTTAGC TTTCATAGCA
6751 GAATTTACGT GCACTTTAAA TCATCAGCAT CATTGTGTTGA TGATTTTCTG
6801 CTTAAAATTG GTATTTACTT GCTGCTTATG TGTATTAAGA TCTTTTAAA
6851 ACCAGTGAGA TCTGCAAATA GTATTCCTCT CACTAGAGGC AAGCAGATGA
6901 ATACAGTGTA AAAAAACTTT GGATTTGGGG GCAAAATAAT TAGGTTCTAA
6951 AAGCAGCTGT AGCAATACTT AGTGGTATGA CTTTGGGCTG CTCATTTAGC
7001 TTTTCTGGGT TTCGCTTCCC TTCCATGGAG AAAGGAGTCA TTGCCTTTGT
7051 CTACCTCTCT GACTTTGTCT CTTCAACTTT CCCCATCTTG ATCTGATCTT
7101 GGGGCCAGTT GGCTTCCTTT CATTCCTCAA ATAGATCACA CTTGCATCTG
7151 TCTGAGGGCC TTTGCGCTTG GAATCCCAC TGCTTATAAT GCATTTACG
7201 TAGTTGGCTC CTTTCTGTCA TTTGAATCTC AGCTCAGATG TCCTCTTGTT
7251 AGCAAGGGAT TCCCTGTCTT ATCTGAAAGA CCTCTCCTCC TGTCCCCAG
7301 CACCATCATT TTCTCTTG TG TACCTATTC GATTGTCTTA CTGGCACTTG
7351 TCATGATTG AAACCATCTC ACTTACTCAT GGGTGACATT TGATGCCAGC
7401 CTCCTTTACT AGCATATGAG GTGCATGAGC AGGGACTTTC TCTGTCTTGT
7451 TTATTGCCAT AACCACAGTG CCCTGGAAAG TGCCTGGCAC TCAATAACCC
7501 TTTGCTGAAT GAATGGAAGG TTGGCAGGAT GGACTGGAGA GGACTGAAGG
7551 CTTTATGCCT CATGGAATTT GCAGGACGCC TCTCAGCTAT AAATGGCAAA
7601 GTACAAATAA GGAGAAAGGA AGAATATCCC CAAATAGTGG CATATCAGAA
7651 AGGACGCTGA TATTTCCACT TCCTTGCAAG CTCCAGCTCG CTCTAAACCT
7701 CCAGTGGCGT GTTTTCTTTC TTTTCTCGTC TTTGACCAGA AGTAAGAAGG
7751 CTGAATAGAA GTGCAGTGAG GGTGGATGGG TGGACTGATC TAGCCTGCTG
7801 AAGATATGGT CAGTGTCCAA TAAATAATTT GGCTCATATT AGCTATTGGA
7851 GTGTGGCTAT TTTTAGGCAC TTTAATCCAC TTAAGAAAGA AGCAAAGCTC
7901 TAGGAGTGGA GGTGGATTTT TTTTAAATG CTACACTTTT AGTGCACACT
7951 TTAATGCAAA ATTCTGGAGA AGCCCATACC TTATGTGCAT AGCACCTTTC
8001 AGTTTACAGA ACACTTTSTA GGAATGATCT CATTGTACT TAAAAAACC
8051 CTATTTTGT AGGGATTAGA GTCTTTAGATT TACTGACAAA TAAAGCAAGA
8101 TGTAGAAAGG ATAAATGATT TATGTGGGAG CCCAAAGCAA CAAACAGGCA
8151 GAGCTGGGGC TACCCTAGGC CTTTGTATGC TTACGTCCAT GACAGTTTCC
8201 TTCAAGCTTT CCTTCTCCC AGCGACTTTG TTCATTCCAC ACTCTCCTGC
8251 TCTTTGTAC CCAAAGTGT GTTCAAAGGT TTCTCTGAGA GATTTAGAGG
8301 AAGCAGTCTC CTTGTTGATC AGTGAATCTT TAGTTGATGG CTATTTTCTG
8351 CAGGTTGTGC TTATTGTACA GGTCTACACT TTCATTCTAT GAGCTCAGGT
8401 GAAGACCTT AGATCTTCTT TCTGCTGTAC TGGCTAAAAG AAGATTTTGG
8451 TCTTTTGTGA ATGGGGGCCA TTTTCAACTT GCTAGGTTGC TTAAGTGCTA
8501 GCTTTATTAA CGTGTTTCCA AACACACATT TGTGGAGCTT AGATTCTCTG
8551 GAAAGAAAAT AATCTATTTT TGATTTAATA TCCAATTTTC AGGAGATCAG
8601 TGTTCCAAAT GGGATTTAAA ATGTGCCAAA ATCACCACAA TTATCCTCAA
8651 AAGTACCAAG GAACAGTGT CCAAAGACTG TCTTGCCAA GATTTGGTTC
8701 AGGCTTCTTT TCCAGCAGTG TCTAAGGAGC TTCACCATCC TTTTGTCTAA
8751 TCCAGTGAT CACTGGGTG AATTAAGACT GAGCAGGTTG ACTTTGCTGT
8801 TCCACACCAT TTCCAAAACA TCTGTACTTT GGCTCCATAT GAACCCACC
8851 TTAAATCTGA TGCATTTAAA AAATATAATA TAGTCTTCC CCTCATTAGG
8901 AAACCTCAAC CACAACAGG ATATGGTGTG AAGTATATTT AATATAGGCA
8951 CAGTGAGCTA GTGATTTCTT TTTGACTTTT AGTCTACAGG AAATTAGAGG
```

FIGURE 3C



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

9001	AAGAGTTTAA	TGATAAAATG	GAAAGAAGCC	ATTCTACTGA	TAGCCAGTTA
9051	GGAAGTTTCA	GTTTGGACAG	CTCCCTTGGC	TGATGCAGAA	AGGTGGATAA
9101	AAATGACAAT	CTTTTTCTGT	ACTCTGATTC	TTATAAAGGG	CACCTACTGG
9151	ATGATCCAGA	TGAGGTTAGA	GTGAGTTAGG	GGCTTAGCTC	TACATGGCAT
9201	GTTTACAGAA	TCTACCTAAC	CGTGGCACTA	GGAGTGTGGT	CACCCTGTTG
9251	GTTCCACCCA	CCTGGGTGAT	TTCTCTCCAT	AAGAATCATG	GAGGTCAAAG
9301	GGACCTTCCA	CTTCTGGGGT	CTGGTCCTAG	GGGTACTCTC	AGCGGAGACT
9351	TTACAGTTTA	TCTATGTCTG	GCTCATTACC	ATCACCTACA	ATGGGGAAAT
9401	AAAGACCTCA	TATTTACTTG	CTAGAACATC	TATTTGTTCAT	TTGCAGCCAC
9451	AGTTTAAGAG	TTTTTTTTTT	CTCCCTGTGA	GTGTCTAGGA	CTGAGTACTC
9501	TGAATTGAAA	ATGAAACCTG	ACTTCCTAAT	CCTCCATTTA	GGGTGGAAGG
9551	GAGGGAGTAA	GGGTCATAAT	CACTGGCAGG	GGAGGGCACG	GTCATGAGGG
9601	AGCATTGCAT	TCTTTTCCCT	TGCCATTCCC	AGAGCCAGGG	AGATGGGGAG
9651	GGGTGGGCAT	TGGAGGTAGT	GGGGATGAGG	CTGGGAGATG	GATGGGATTT
9701	CAGGAGATT	TAGGTTTGT	ATTACCAATA	ACTGCTAGTC	TCATCACTTA
9751	CCCTTTCCAT	GGAAGTAACT	TTGAAGCAGA	GTGGAATGGT	GGGGAAACAA
9801	GATTAGAAAG	GAAAACATAG	GATTTACTGC	CATACATAAG	CCAGGTGATC
9851	ACAGGGAAGT	TTTCCTTCAT	TCCTCCCGTC	CTTCTTTTCT	TCATTCCCTT
9901	GTTCCCTCCC	CACCGCCATC	CCCCCAAATC	CTGCAGAGTC	TTGATCTCAA
9951	TTGCTCTCGC	TTGTGCAAAG	GGTCCTTTCT	CCCTTACTCA	ACTACCCAGT
10001	GTGGTGGGCG	TGGTGGTATT	TACAGTTTAA	AAAGAGTTGC	TTGAATAGAA
10051	AATGAAAATT	TGGTCGGGTG	ATGGAGAGCC	TGGAAGTCAC	GGTAACTTTT
10101	GCAGACGCCT	AAAACACCAA	TATTCATAAT	TTTGACATGC	AAGCTAGCAA
10151	CAATTTTACT	ACCAAGAAAA	TGAGTTTCTT	ATGTGCAAGC	AGAACTCGAG
10201	ATCCCCTAAA	TAATCACACA	CCAAATATTT	AGCATGATAA	AGATAAATAG
10251	TATAGCTTAC	TAAATTTAAT	GTGATATGAG	CCTGACAGGC	AGAATAGAGA
10301	TGCTTGATAT	TAGGTGTGAT	AAAAGGTTTG	ACATCCAACA	TTCACTTACT
10351	TCGTCTCTCG	AGACAAAAGT	CAGGCACCAA	GTGTTTAAGA	AAAATTGATG
10401	GGAGGAAAAG	CTTAGAGATG	AATAAAGTCT	ATTTATTAAT	TTATATTTTC
10451	CTCTGAGAAC	TGGGGAGTGT	TGTTACCCAT	GTAACTGTG	GACTAACCTG
10501	GGCCAGCTCC	TGGATTCTAC	TGGCTAAGAA	TGTTGCTTTA	GGCCAAAGGA
10551	ATTTATCCCT	CATGGTGGAA	TTTGAGGCCA	TATGGGAGGT	GATTATGATA
10601	GATCTGTTTC	GGCCTCTACA	TTCTTACAAT	AACCTGAAAG	GAGATTAAAT
10651	ACATGTTATA	GTCAATTAAC	CTAGACTCCA	GGCAAAATGT	CACCCTCTGT
10701	ACAGTATAGG	AGCTTAGGAT	AGGAGACCTG	GTTTCTAGGG	CTGGCGCTGC
10751	CACTCATTTA	GAAAAGGAGG	GAGTTGAGTT	GTTGGTTGTT	GAGATCCCTT
10801	CCTTCCCTGA	TAGTCTTAGA	TTGCCTGAGT	CCTAATCCAA	GCATGATTTA
10851	CTAGAGGCTG	ATTTGGGAAC	ATTGCTTCAT	TTTTCTGTGA	CTTGGTATCT
10901	TCATCTGCAA	GATAGGGATA	ATTACAGCCA	TTACTTCTTT	GGTTTGTTAT
10951	GTGGATTACA	TAAAGTGATA	CATGCAAAGC	TCTTAGAAGA	ATGCCGGATC
11001	ATCATGAAGG	CTCCATGAGT	GGTACCTGCC	TTGTGCTGTT	CTCACAGTTG
11051	CAGGAGGCAG	CCTGTGAAGT	CAGGGTAGCC	TCCAGCTCAG	CCTCTTGGA
11101	GCATCTGGTT	CACTGTCTGG	ATCATCCAGG	AAGTGGTCCA	TAGCAGAGCA
11151	CAACCCTCCT	GATACTCTGG	AAGACTCTTA	GTATTCTTAG	TTCAGATGTA
11201	AACAACCTAG	GCTGTCTCTG	TTAACTCAGA	GAAAAGACCA	GTGAAAGAAC
11251	ATGGCTTGGA	ATCACAATAT	TTGAGTCTGA	GTAAATGTAC	CCATTTTATT
11301	AGCAGTGTAT	CATAGTTGAT	TTGGCTGCT	TTAATAAAAT	TCCATAAACT
11351	AGATAGATTA	TAGACAACAG	AAATTTATTT	CTCACTGTTT	TGGAGGCTGG
11401	GAGGTCCAAG	ATCAAGGCAC	TGGTAGATTT	GGCATCTGGT	GAGGGCCAC
11451	TTTTACAGCT	ATAGATGGTG	CCTTCTTGCT	GTGTCTTAC	ACGGTAGAAA
11501	AAGTGATGGG	TCTTTCTTGG	GCTTCTTTGA	TAAGTGCACG	AATCCTAATC
11551	ATGAAGGCTC	CATGCCCATG	ACCTAATTAC	CTTCCAAAGG	CCCCATCTCC
11601	TAATAACATT	ACCTTTGGGG	TTAGGATTTT	AACATATGAA	TTCTGGGGGG
11651	ACACATTCAG	ACCATAACAC	TGTGTGAAGT	TGGCCAAGTC	ACCTAACCTT
11701	TCCTAGCATT	AGTTTTCTTT	TGGGTAAAT	AAAGATCACA	ATAACAACCA
11751	CTTCACAGTT	GCTGAGATGA	TCAAATGAGA	CAAATGTGAA	TAAACTTCAT
11801	AAACTGTTAA	ATTCCAGACC	AACATTTCCC	AAAATGTGTT	CTGTGAGACA
11851	TAAGCTAGAC	TCATCAGATA	CTCTGAGAAG	AAAAGTGGTG	TCATGGTAAA
11901	GTCAGTTTGC	AGGATGATAC	GTGCTCAGTC	ATTCTTAGAG	AGTCATCATG
11951	CACGTTAGCA	TGTTACTGTA	TTATTGTGTA	ACAAATAACC	CCAACATTTA

FIGURE 3D



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

12001 GTGGCTTAAA TCAATATAAA CATTATTAT CTCATAAGTT CTGTGGATCA
12051 ATAATTCAGG GATAGTTTAA TTGGGTGGTC TGACTAGGAG TCTGTCATTG
12101 ATTGTGGTCA GATGTTGTCC GGGCTGCTGT CATCTGATGG CTTGACTGGG
12151 GCAGGAGGAT CTGTTTCCAA GATGGTGTGC TCATGTGGCT TGCAAATTGC
12201 TGCTGGTTGT TGGGGAGAGG GCTCATTTC TGCCAATGTG GGCTGTCCA
12251 TGGGATGCTT ATGTGTACTC ATATGTGACA TGGTGGCTGG CTTCCCAAG
12301 AACAAGTGAT TCAAGAGAGA ACAAGGTGGA ATTGGCAACA CTTTTATGA
12351 CTTAACTCA AAAATCACAT ATTGTTACCA CCACCACGTT CTTTTCATTA
12401 GACGCCAGTC ACTAAAGTTA GTCCACATCT GGGGAGTGGT GGGGGTGATC
12451 ACATTCACGT TGGAAGGGAG ACATGTCAAA GAATTTGAAG ACATATTGAA
12501 AAATCACCGT AAGAATTTTT TCCTATCATT TATTGAATAG GCACCACGTG
12551 CTAGGTAAA TGCTTTGTAG TTATTATCTC ATATAATCCT ATTCATAATC
12601 CAAAGAAATA GGTGAAATTA TTATCTCTGC TTTCTGAATG AGGAGGCTGA
12651 GGCCTATAGA GCTTAAGTAA CTTGCCCAA GTTACCTAGT CATGCTACGA
12701 CTTGAACCCG AGTCTGTCTG ATTTAAAGCC TGAACCTTA CCTCTGCCTC
12751 ATATGCCTCT CTCTGATAAT CCTGTAGTTC AGAAGTCTGT TTAATTTTGT
12801 TTAAGCCTGC ATTTTCTACT TAACCACAGA ATGATGATT CTTAACTCC
12851 ATTTTACCC TTTTCTTAC CAACGGCTTG AAACATTATT CTAGAAAGAC
12901 AGTGAGCATG ATGATGATTT ATGTATAATA TGAACATATG GTCTCATAAT
12951 AGATCCAGC ATACCTATCA GTCCAACTT TTTGTATTAT TCAAATACTG
13001 GAAGTGCTA TTTTGCCTGT CTTGTGTGGG CACCATCTAT GTGTAAATCT
13051 GTAAACATTA ATTTAAAAA AAGACCCCAT AATCCACCT ATTTTCTGT
13101 ACTGTGAAAC TAGAGGTGGG GTGTGATAAC TCATGGTCCC ACTTCTCTTA
13151 CAGAGTCCCT TTCTTTGCAA TGTCCCTTCT TTTACAGATT CAGTGACTGA
13201 CAACCTAACT TTCTTGGGTA AAGCCAGAAA AAACAGGATG GCCTCCAGGC
13251 CGAGCAGTAG AAATGCTGGG GAATGGGGTG TCTGGTGTGT GTCTGGTGTG
13301 TTCCTGCAGT GCCTGCAGGC CATGTGTCTG TATGGTGAAT GAAACGCAAG
13351 TCGGCATCCA CCGAGGATGG CAGGGACCGT GTGCCTGGGG GTGACGGCAA
13401 ACACACAGTG AGAAGCTGCT GATGGAGGGA GGACCGTAG CACTCCTTGT
13451 CATATTTTGA GTAAACATTT TTTTACAATC TTGTGCTTT TTCTGTACAG
13501 TCTTGAGAAA ATGATTTCGA GGAAGCAGGA TGCATCCAAT GACTTAGAGG
13551 TTCCCATGTT TCCAAACATT ACATGCCTGG CTTATTCTCT AGGCAGTTTT
13601 GTATTCTGAA GGAAGTTTTG GAGCTTCTGT GTTCTGGGCA GAGGCGAGTG
13651 AATATGGTTT CTTTGTAGTA GCACCGTGA CTTGAGAATG ATCAGGAGCT
13701 GGACATTGTT GAATATGTCA CTTACTGCAC AAAATGGCAA AGACAGGGTC
13751 TGGGACAGGG TGAGAGTGTG TTGAATGGAG ATGCCTGGGG CCCCAGTCAC
13801 ATTCAGGAGC CAGCACTGAT GGCATCTGTA ACCATAGTAA CCAAGAGTGG
13851 AAAAAGTCTC AGGATGCCAA GACGCCACTG TGCCCCCTT CTGGTTCTGT
13901 TGTTTTCCCC TCTATTCTTT CATCCAGAAA TTCCCCATC CCTGCCCCCA
13951 ACCACCCTGA CAAGGGACTG ACTTTCAGGG TGGTTTCTAC ACTGGTGATT
14001 TTAATTCCT ACTAATCAA CACTTCCTGT AGCCCTTTT TCAGTTCTGA
14051 GATCCACAAG GATTCAATTAT GATCCAGACT AAGCCTCATG CACCTAATTT
14101 CTTCCGCTTT TCCATTTTGA CTGTGAAAAT TGGTCTTAAG TCCTGTAGTA
14151 TACATACTCT AGACTTATTT ACAGCTGGGC ATAACAACGG TGGCTCATGG
14201 CACTCAAAGT TTCCAGTAAC ACTCCTGCAC TCACAGTCTG GTATAGATCA
14251 TGAGATTTTT TTAGATGTGT TTTAAATGAA CAGAGAAAGG CAATGAGGCA
14301 CAGGAAAGAG AGCCGTGGTC TCTTGTGTTG AGATGTGGGT TTTGCTACTG
14351 GTTGAAAGT GAGGTGTGGC ATGGCGCATG AGGTGGGGA GAGGTGGGTG
14401 ATGCTCAGGT CATGTAGGGC ATAGTAGTCT TTAATTAATA AGGAATCTT
14451 TTTTCTGAG AATAACAGGA ATGTCTTGAT TGATTTGAAG TGGGAGGATG
14501 ACACAATCAG ATTTTAAAA GATTATTTAA ATCGCTAATA AATCAAATGA
14551 TGGGTTACGC GAATGTTTGC AGAGGATACT TACTGTGTGA CAGGCATAGT
14601 GCTGGCCTTA CCTGGGGTAT CTGTGTATTC TTGTAGGAAT CCTACATAAA
14651 AGCTGTTAAA ATATTTTAA AGAAAAAGC TTTTCTTGAC ATCTTTGAAT
14701 TATGACAACC AATTCCAAAC TTCTGGTTGC AAATGGGAGG TGTATCTTAA
14751 AGCAATGGCG ATTGCATTTT CAATTTCTGT TCATTAAAAAT GATATTTTCC
14801 CTGGCTTTGT TACATGACCC TTGATTCTGT GATAATTTGC ATATCTAGAG
14851 TCGATGAATC AATACATGCA AAATGTGGT GCGCTCGCTC ATATCTGTGTT
14901 ATACTTCAGA CGCCTTTTGG AAGCATGTGG CTCTCAGTTC AGCATAATGC
14951 TCCTGATAAA ATTGCCCCCT CCATACCCGC CGTCACTTTG TTCCTGGTGT

FIGURE 3E



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

15001 GTCCAGAGGT ATTGTAACAT TGGGGTATTT CTCCTTTGAC TCTAATGGGA
15051 CCCCCCTGCTA GTTGTGTTCT TGTGGCCTCA GCTTGAAGG CCTCCCAAAA
15101 GCCTGAATTA ATGAAAGCTT CTGATGTGCC GATCCCTTTC TCTGGCAGGG
15151 TGAGAACGCA GTTTCTATAG GAGCGTGAAT GCCTGCTGCT CAGGCAATAA
15201 TCTCTGCATT CAGCCTCAGT ACTAAAGACA GGCAGAGCAG ACAGCCACAG
15251 GGGGTGGGAT TTGAGGAGCC CTATAAAGTC CCTCTCCACA GCTGACACAC
15301 ACCACTCCTT CCCATGACTA TCAGGATGCC TACAATCTTA ACAGTTACTT
15351 TATTCATGCG AACTATTGTC TCATCCATCT GGTATTATCCA TAAACACTTA
15401 GCGAGTGAGT GCCTGCAGAA ATGGGGCTAG GCATTGGACA CAGAAAGATG
15451 AAAAAGACCT GAGGCGTGTA CCCAGAGAAG TCACAGCCTA GCCACTGAGA
15501 ACAGGTGCAT CATCAAGTAA TTATGATATA CCATGATAAA TGCATATCAT
15551 TTATATGGTA TATGATATAC CATATGATAT GGGATATGAT ATACCATATG
15601 ATATGGTATA TCATATACCA TATGATATGG TATATGAGAG AGATATGGAT
15651 TAAAACATCA GCTCCAGAAC ACATCTTGTT AACATGCGAA TGTAATTCCT
15701 CAGGGTAACA AACTAATTTT CAATTACCCG TGGGTACAGC CAAATTAATA
15751 GTTCCTATGA GAGAACTGGA CCAAGCAGAG AACAGCAACT AGGGACTGAT
15801 ATGTATTGAT AGGCTGGTGT CAAGTGGGAA GGGGGGAAGT CAGGTGCTGT
15851 GTAGGGAGCA GACTGAGAGC TCTGGAGGGC AGGAGTGCCA GGAAGGTCAC
15901 TGAAAGCAAC TTTTCATTTG TGCAAAATGT GTCAGAGGTT GCTCTGCTCA
15951 TGTTAAACTC ACTTTATAAA GTGGAAGGAA CTTTAAAGAT ATCCAAGTCC
16001 ATTGAGGCTT CTTAGGGCAA TACTGAATCT AGATTGGTGA AGTGACTTGT
16051 GCTTGCCAGC ACAGCAAAAA GAGGACAAAG CATATCTATG AACCCGTAAT
16101 GCTAACCTTC ATTATTCAAC AGTGATGCTT ATGGCAATGC CAACGGGTGT
16151 TGGGGCCTTT TATTAATTTT TAATTTTAGT TTTTATGTT TTTGAGACAA
16201 GATCTTGATT TGTCGCCCGA GCTGGAGTGC AGCGGTGCAA TCACAGCTCA
16251 CTGCAGCCTC GATCTCCTGG GCTCAATCAA TCCTCCACC TCAGCCTCCT
16301 GAGTAGCTGG GACTATAGGC ATGTGCCCCC AGACTTGGCA AATTTATGCA
16351 TTTTTTGTAG AGACAGGATT TTGCCATGTT GCCCAGGCTG GTCTCGAACT
16401 CCTGAGCTCA AGCAATCCGC CTACCTTGGC TTCCCAAAGT GCTGGAATTA
16451 CTGGTGTGAG CCACCGTGCC CTGCCTGCTT GAGCCTTTTT GCTATTCTCC
16501 CTCCTATGGG AAAAAGAATC GAGAAAGAGC AGTAGGCTCT ACTAGAGTCT
16551 GGAGCATATC GGTTCTGAGA TTTCAGATTA AATTCTCTAT GTCTGCAGCA
16601 AGTACAAATG TGAGTGATA TTCAGCCTCT TGAAGAAGAC ATCTATCCAT
16651 TTCTTCAGTG AATATTGCCC CGGAGTCTTC TTCGTGACAG GCACTGTTGT
16701 AGGCCCTGGA GGTACAGCAA TAAACAAGAC GAAGTCTCTG CCCTCCTGAA
16751 ACTAACCGTT TAGCCAAGGC TTAGCATCTC TCACACTCAG GTCAACTTCT
16801 GCATTTTAGA AATCTGTTTC AGGCACGCAT TTGACAAGTA AAGAGGTTCC
16851 AAAAATACAT TAATAAGGAT GAAAAAGAGG CCATTCTGAT ATTCCATTGC
16901 TTGGCAAAAA TGCTTAATAT GGGAAATTA TATGGAATGG GTGCTGATGC
16951 TGTCAAAGGT GGTGACATTC TGTTAGAAAA TTCAGTGATT TCAAAGAAGG
17001 CCTCAGAGCT GCCTAGTTTG TAATTAGATA TTTTGAAGAA TCTGTGTTAA
17051 TTAGGACTCT TGGGCTTGTG CATGTATACT GGGACGAGAC TGGAGTTTGT
17101 GTCTCTCCCA TGATGATGGC ATGTAAATTA ATCTCCAAGG AATTGCAAGA
17151 TGCTGAAATG TGAGGTACTT GAGTACACGT TGCATGAGTG CACACAAGTG
17201 TGCCTGTGCC GGGATGCGTG TGCACGCGTG CACACACATA CACTCTAGCA
17251 GATAGTAACT TTTTGCTACA CGTGATTTCC AAAGTGCTTA AATTTACATG
17301 TCTTTTGTAGT AGGAGGAAAT TAGGACTTTT GTCTGTTATA TGCCTTGCA
17351 TCTCTTGCCC TTCTCTGGGC TGCTGGGGCA GAATGAGGCC AACAGAGAAC
17401 CACGGATGCC AGTCTGGGTC ACAAGGGCTT AAGGAAGCAG CAGATGGTTG
17451 GACTGACTGG GGTGTCCATT AAGAATCCAG GGGTAGTGAG AGTCTTACCT
17501 GGAGTTTGAG GCCGCACTTC CATTGCCAGG ACTCTCAGCT GAGTGGCTGG
17551 AAGAGACCTG TAGGAGCCAT CTTCCAGTA TCTATCAGAG GTTCTGTCAC
17601 TGTTTTAAGC TCGTCCTAGT GATCGAGGGA ACCTTGACTG GGGGTGCTGA
17651 TGATTATTAA CAGTGGCCAT ACTCCCACGG CTGCAGGTGG AGATGAAGTG
17701 TTTGATGAGA AGATGAGCAA GAGCTCAGGT GTGCCCCACC AGCTCTGCCA
17751 CTCCCAAGCT GCCGAACCTA GGCACAACT TACCTCTCTG TGTCTGCTTC
17801 CCAACTTGAG AACCGGAAAT GATAAAAGTA CCTGCTCCCT AGGGAGTAGG
17851 TATGGTTAAA TGAGACCTCT TAAATGAGAC CATGCACACG AAGAGCAGAG
17901 CACAGTGCCCT GGCACACAGG AGGCACCTAA TAAACATCAA TGATGCTGCT
17951 GCTGGTAACA CCCATTGCT GAGGGTCTTC AGTGGCTCAG GCACAGTACT

FIGURE 3F



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Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

18001	CAGTGCTTAA	CATATAATAT	GTAATTTATT	CTTCACAGTA	GCCTGAGTCA
18051	CTTGCTTGTT	CTTCTGGTTA	ATATCCTAAT	GTTTAGCTCA	CCAACCTAGA
18101	TGCTCATGAC	TTCCAAAGGA	TCTTCATGTA	ACAAGGACTC	CATATCTATT
18151	TTTAAAAAAT	AAGAGCTTTA	TTAAGATATA	ATTTACATAC	CATAAAATTA
18201	CCTATTTAAA	ATGTACAATT	CAGTGGTTTT	TAGTATATTG	ACAGAGTTGT
18251	GCAATCATCA	TCACTATCTA	ATTGTAGAAA	ATTTTCATGA	CTCCAAAAAG
18301	AAACTCCATA	TCCATTAGCA	GTCACCTCCC	ATTTTATCTC	TCCCAGTCCC
18351	TGGCAAGCAT	GAATTTACTT	TCTGTCTCTA	TGGAGTTGCC	TATTTTGGGC
18401	ATTTTCATGT	AATGGCATCA	TACAACAGGT	AGATATTTGT	GTGTGTGTGT
18451	GTGTGTGTGT	GTGTGTGTGT	GTGATCAGCT	TCTTTCACGT	AACATAATGC
18501	TTTCAAGGGT	TCACTCATGT	GGCATCCATA	CCTATTTTGA	ATGAAGAATG
18551	AAGACAGTCA	TCTGAGACAG	TTGTATTAGT	CCATTTGGAA	GATGAGGAAA
18601	CTGAGGCTGA	GAGTGTGTAT	GTAATTTGCT	CATGGCCACC	CATCTTGAAA
18651	GCGCTTGAGC	TGGGATTTGT	GCTCAGGTCC	ATCTTGGCTC	CAAGGCAAGA
18701	CCTTGGCCTT	CTCATCCACT	CACCTGGTCTC	TGGTTGGACC	TCTGCATCAT
18751	GCTGAACACC	ATTTCTATAG	AGATGGGTGT	GTCCCACTGG	GTGTGGACAT
18801	CCTGAGGAAT	TGCTGTGGTT	GCAAGAACTC	TGATATTTTC	CATCTACCTT
18851	GAGGGGGATA	TGGTTTCATG	TCTGTATACT	CACATAGTGT	TGACCAGTCT
18901	AATTC'TTTT	TCCATTTCCT	AAGGGTTATG	ATATGAACTT	GGAAAGTTAC
18951	AGAAATGAAA	GTGATAGGAG	AGATATACTT	TCTGGGTGG	AAACCCAGCA
19001	ACCAGTCACT	CAATATGATG	GAGGAAATGT	CATCCTTCTT	GTGTTGTCTT
19051	CAATAATAGA	TTGTAATGAA	ACACTATGGT	GTCTTAGTTG	GCTCCCTCC
19101	TGCCCGTGC	CCCCCTCCCC	AGCCCCAGTG	CTTTTCTGGA	GACATGAGAT
19151	GGTGTATCCC	TTCTCAGTT	GCTGTGATAG	CAGTGGGGAT	GATGGGGACA
19201	GGTATTCATG	GAAGGAAAAG	GCATGGTACC	AGCAGGCTCT	TGGGCAGGGA
19251	TGTGTGTCTT	CACTTGATCA	TCAGGGAATG	AGCTATCATG	ATGACAGAGC
19301	ACATCCTATG	AAGTACAAAT	CTTCCCCCAC	ATTTCCCCAA	AATTACTTTT
19351	GTCTCTGCTT	GTTCTCTCAC	ATGCTATTCT	AGGGAAAAGG	TCCCATTTTA
19401	TCATTAATAA	GCAAATGAGA	TTTCCATCTT	GCTTCTACCA	AAGAAGGAGG
19451	AAAATAACCT	ATATAAACAC	CATGAAACCT	TACTTTGACT	TAAAACTAGT
19501	GGAAATTGGC	CCCTGAATCA	GATAATTAGC	TGAAAGTACA	TGAACAATTT
19551	AGGCCTCCGG	TAGTGGTTAT	GTGCTTGTGT	TATAGGAATT	TCGTCTACCA
19601	TGGATTTTCA	GGAAGTGGCC	CCATTCCCTG	TCTGGGTTTA	TGTAAGACTT
19651	TCAGCAGCAG	CCCAGTCTGA	TGTAGCAGAT	GTTCCAGTGC	CTGTCCCTAT
19701	CCTCCTGTCT	GCACCACTTC	AGCTCATGCT	GGCTCACTTC	TGACTGCCAA
19751	CTTGGCATT	TTTTTGCTT	TTTCTTGACT	GAGCCTACTT	TGCTGTCTCC
19801	ATGGAAGGCA	GGAAGTGTG	GGGAATTAGT	GGACCCAGG	AGGAGCCCTC
19851	AACCAATAAC	TGATGGAAGA	TGGTGCCTAA	ACACCCCAAT	TCCCTCAGCC
19901	TTGGGTAGGG	TAACTCAGGA	ATATGGTTTA	CATGGGGTCC	CAGTTTCCTC
19951	TGTAGGAAAA	ATTCCACTGG	GCGACAGCAG	TAGCTAGTTA	GAAACTTCAC
20001	CTTTTATTGG	TTTTTCTGGC	TGCCCTCCCA	GCCCTTCTC	TTTTCTCTAA
20051	TTCCCTACTG	GCGATTTCTT	CACTTCCCAA	ACAAACCACT	TGTGCTCAAA
20101	TCGTAATTGT	AGGATCAGCT	TCTGGGGAAA	CCCAAATGAA	GACATATGGT
20151	AAAGCTTCCC	TCTTTTCTTG	CCTTTCTGCC	TTTTGCCCCA	ATCAGTTAGC
20201	TTTGATGGTG	GGAGTGAGGG	GATGCTCAAC	CTCTCAGGCA	GGCTAATGGC
20251	TCTCAGGAGA	CACAATCCAC	AGCTGATTGG	CAGTTTCTC	CCCAAGATAT
20301	CTTCAGAACA	AACCCTGGTG	CTGGTGAGTG	ATCCATGCAG	CATGAAAAGA
20351	GAGGGTGAAG	CTTGATGAGG	CATGTTCCAG	TCTCATCAAA	CTATTTTGTT
20401	TCCATAATTT	TCCTTCTCAG	AAAAGGGCAG	AATCAAGTAC	AGTTGATTCT
20451	CATCATTTAT	GGTAATTCTT	GTGTTTTATA	AAGTTGCTGT	AAATCCTGAA
20501	TTAGCAAATA	GTGAACCGTT	GCTTTTAGGG	GAAATATACG	GTTAGGTTCC
20551	TGTGAGCCTC	TAGTCACAAC	ATTTTCTTCT	TCTTCTTCTT	CTTTTCTTTT
20601	TCGAGCTTAG	GGTCTTGTTC	TATCACCACG	GTGGGAGTGC	AGTGGCGCGA
20651	TCTTGGCTCA	CTGCAACCTC	CACATCCACG	GTTCAAGCGA	TTCTCCCACT
20701	TCAGCCTACC	GAGTAGCTGG	GACTACAGGC	ATGCACCACC	ATATCCGGCT
20751	AACTTTTGTA	TTTTTTGGTA	GAGGTGGGGT	TTCACCACAT	TGGCCAGGCT
20801	TGTCTCAAAC	TCCTGACGTC	AGGTGATCTG	CCTGCCTCGG	CCTCCCAAAG
20851	TGCTAGGATT	ATAGGCATGA	GCCATCACAC	CTGGTCAGGT	CACATTTTCA
20901	TCAACTAAAT	ACATAACCTT	GTTGTATGTG	TGTTTCTGTT	TAAAGACATC
20951	TTATTTTCATA	TATACTGTTG	ATTTGTTAGC	ATTGAACTCA	CAGCCACAGC

FIGURE 3G



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

21001 ACTGTGACTC ATTTCTGAAC AAAGTTATCT AACACACATA TTTTCTCCAT
21051 AAGGCACCTC GCATCTTGCA CTTAGGAACA CTGGATAGCA CTTCAGCATT
21101 GCACTTGGGG GTGATTTTAA ACAGTGCAAA CACTAACAAA AAAGCACAAA
21151 ATGTGAAAAA CATGGCACTA AATAGATCAC AGAATGGACA CTAGCTTACA
21201 GCATGAGCGC TCGAACAAAG AGGCAGAGCG CTGCCTTGTT CAACCTCAGC
21251 TGAGGACATG TGCATCGGGT GACTCAAAC TTTTTCCTG CTGTGTGCAT
21301 GACTGCCAAT GACTGCAGAA CACCATGAAT ATTGATTGA TTTTCGGGTT
21351 ACAAATAAAT TTTAACACGT AGAAGAATTT GCAAATATAT ATTCACTGAA
21401 TAATGAGGGT CAGTTGTCTT TCTTACTTCA TTACAATAAG ACTCTACTTC
21451 AATTCAGTAT TTTTATTTCA TTTTATTTTG TTTTGTGAG ATAGGGTCTT
21501 GCTCTGTAC CCAGGCTGGA GTGCAGTGGT GTGATCCTAG CTCCTGCAG
21551 CCTCAAACCTC CTGGGCTCAA GTGATCCTCC CGCCCCAGCC TCCCAAATAG
21601 CTAGGACTAC AGGAACATGC CACCACACCT GGCTAATTTA TTTATTTTTT
21651 TGTGGAGACG GCCTCCCTAT GTTGCCAGG CTGGTCTCCA ACTCCTGTTT
21701 TCAAGCCATC CCCCCTTCTA CTCTCCCAA GTACAATTTA GTATATTTAT
21751 TAAACGTGTG TTCCAGGCTT TTTGATTGCT ATTGAGATGC TAATGAGATG
21801 GTCCCTGTCA TTAAAGAGCG TCCATTCTGG TGGCACAAGG AACTCAAATT
21851 ATGACACAAG ACAGAAATACC TACTCCAGAA GAGAGTTCTG TGAAAGCGTG
21901 AAGGAGGGAC TTGAGTGTGC GATTACAGAA GGACTTCACA TTGGAGGGAG
21951 TTTTTTTAGA TAGGCTTTGA GAAACATTTT ACATTTTGAA CACCTCATAC
22001 ATCATTGATA AAAAAAGAA GCAATTGGTG GAAACAACCT CATTTCCTCA
22051 GATCAAGTCT TCTAGGTTAC CTGCATCTGC ACCCACCAGT CCCACCTTGA
22101 TTCCTCTCTA GATGAAGGGC GTCTTTTCCT ACCTAAGGCC GTCCCTTCTG
22151 CTTATGCTGG GGACTCCTTT GCTCTTTGGG GCATCCTCTC TTCTCTGGG
22201 GAATTGATCT CTCCCTCTCT ACTTGAATAT TCCTACTAGT GTATACATGG
22251 GCTTCCGTGT CATCCCCCTT GATCCCGCAT TGCCGCCAGC CACCCCTCAT
22301 TCCTTTAGGC CTTTCACAGC AAAATTGCTG GAAAGGGTGG TCTGAAGTCA
22351 CCATGACTAC TTCCTCCCTT CACATTCTTT CCAAGCCACC ACCACTTTAT
22401 GGGGGCTGCT CCTTTGGAGG CCACCTATGG ACATTGCATC ACCTTCTGT
22451 CCTTTTATCT TAAGTACCAG TTAGGATGCT TTCAGCTGCC TGTTCAGAA
22501 TGTCTGATA CAAGTGACTT ACACAATACG GACATTGACT GTTAAGAGAG
22551 TTACGTTCTC ACTGAACAAG GATGTTCCAG GCTTGGCTTG GGTGTTTCAT
22601 AACACCTTCA AGGACCCAGA CTTCACTTTC CTGCCCTGCC TCTCTTGATC
22651 ACATCAGCAG ATATTATGTC GTCTAAAAAC AGGGAAGGGA GTGAAGTAGC
22701 CTCTGTGTTT TTCTTTTAT CATGGAGGAT GTTTTTTTTG CCCTGCAAGC
22751 CCCATGCACA TTTCTTAAAT ATCACCCCTT AAATCATCC CTGGCAAAGG
22801 GGGATGGTAT TATCCTTATT GGCTTGGACC AATTAAGATT CATCCCCTGA
22851 GTCTGTGAAT GGGACGCATC TTCTTTGAAA TGTGTGCTAT TAACCAAAT
22901 TGGATCTGTT AAAGGAAGGG GGAGCGCTA AGGTGAAAGT GCCAGGCAGT
22951 GTCTGCCACA TTTTCCTTGA CCCTTCCTAG CAATTTTGAC AGCCAGCCAC
23001 CCCATCCTTC TTGAAGCACT TCATTTCCAT CACATGCTTT GTGACATCAT
23051 TTCCTCTGGG TTTTATTTAT TTATTTATTT TTTTATTTAT TTGAGACAAA
23101 ATCTCTCTCT GTTGCCAGG CTGGAGTGCA GTGGCACGAT CTCAATTCAC
23151 TGCAACCTCT GCCTCCCGGG TTCAAGTGAT TTTCTGCCT CAGCCTCCCA
23201 AGTAGCTGGG ATAACAGGCA TGTGCCACCA CACCTAGCTA ATTTTGTAT
23251 TTTTAGTAGA GACAGGGTTT CACCATGTTG GCCAGACTGG TCTTGAACCTC
23301 CTGACCTCAG GTGATCCACC CGCTCGGCC TCCCAAAGTG CTGGGATTAC
23351 AGTCATAAGC CACCGCGCTT GGCCGCTCTG GGTTTTCTTT TAACTTTTCT
23401 GGCCACTCCT GTTCTCTGTT GACTCCTTTC TCATTGCTCT ACCTCTAATT
23451 GGTGGAATGC CCAAATAGTT AGACCTGAGG TCCTTCTTGT CAGGATCTGT
23501 AGGTTCTCCT GAGTGATCTC AGCAGTCCCT TTGTATCATC TATATGCCGA
23551 GTATATCCTA AACTTGCTTC TCTCAAGAGT TTGTATCTC ATTGAATGAG
23601 TTTCCCATCT CATTGATGGG CACCGCCATC TATCTGTATA GTTGCTTAAA
23651 GTACGGGCAT GTTGCATGAG TCCTCTGTTT CCCACCCCTG CCATTTGTGT
23701 CTCCACTCAC CAGCAAGTCC TGCCGTGATC GATATCTAGA ACACATCCAG
23751 AATCTGTTTG TTTCTCTCCA TTTCTGCTCC TGCCACCCCTC ATTCCACGCA
23801 TCTTCTGTG TGGAGAGCTG ACAGCCTTTT TATCGGCCCTC CTTTCTTCTA
23851 CCCTTGCTCC CAATAATTGA TCCTCCGTGG AACAGCCACA ATGATCTTTT
23901 AAAAATATGA ATCTGATTTT TCTTGACCCG CAGCTTAAAA TTCTCTATCG
23951 GTTCTCTTTT CCACTCGGCA TAAAATCTGC TTTCTGGTGC TGGCCTGCAG

FIGURE 3H



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

24001 CACCCTGAGT GCTGGCTGTG CTGACCTCCT TTCCAAGGCT GGTCTTGAGC
24051 CGTCTTCCTC TAACCTATGC TGCACCTCTT TCTGCTTTCC TTGAATAAAA
24101 CAAGCTCCTC CTGATCTGAG GGCCTTTACG GGACCTCTTT TTTTTTTTTT
24151 TCTCCTAGGA TTATCTTCTG CCCAATTTTC ATAGGACTGG CTTCTCCTCG
24201 CCTCTGAAAT CTCAGTCCAA ATGTCATGTC CTCCAAGAAT CTTTCTCTAA
24251 CCGCCCACTC CTGCTGGGCA CCCTCTGTTG TAGCATACTG TTAGGAGTCT
24301 CTGCATCATG CCTCTAACTC TTTGAAAAAA AGTTCTATTT GTTAGTTTAA
24351 TAAACTAAAA CTAAAAAATT TATAAACCAA ATTTCAAAT TTTAAAAATT
24401 AATAAACTAA AAACAGTACA ATGATATCTC TGTGAAGTCA AGGGAGGAGA
24451 GAGTTTTAAG AAGGGGAAC TAATTAGCAG CACTAAAGGC TCTACAACGA
24501 CTCAAGATAA TGATAATGAT GATGATGATG ATGGTGATAA TGACAGTGAT
24551 AACTAACATT TATTGTTACT ATGAACCTGG AAGAGTGCCA GGCATTTTGC
24601 GTACATTATC ATATTTAATT CTGACAGATT AAAAGTCTCG ACAATGCCTC
24651 TACTGTCAAG GAATGTTATT CTCATTCTCA GAACACTGAG ACTTAGGGAG
24701 GTCAGTCAA GTGCCCTGGCA CATGGTAGCT TTCGATTAAT GTTTGCTATG
24751 TGAGTAAATA AATTTCCACA AGGTCCTGGA GCTGGTGAAT GGTAGAGTTG
24801 AGAGTCTAAC TTAGATCTGA CCGAATCCAA AGTCCGTATT TGTAACCACT
24851 GGTCTATATT TGCTCAGATG AAGACAGAGA ACCCCTTAAC AGATTGAGAA
24901 AAGGAAGCCT AATATAGGAT AAATGATTTC TTATTTATTT AAAACATGAT
24951 AAATAAAATT AATTTTCAGT CCAAACCTT CTGAATTTTG GAATTCTGGA
25001 CTCCATTTCAT TCAATTCATT TGAAGGCATA GGTGAGTTCT TTAAGAAG
25051 CATTAGGAAT GAATCCAGAT TGAACAATTT TCTTATTAAA ATACCTTAAA
25101 GATGCATTCT TATGATGAGC CAGGTTTCATT GTCCAGGAAA GCTATTAAAA
25151 CTCAGTCTTT GTGATGAGTG CAGTAAGAAC CCCACTTGAA TTACGTAGTG
25201 AGCAGGTGCT TCCTAAACCA AGTTTCATGT TTGACAAGCT AGGAGAGAAC
25251 CCAGTGTTAA ATGTTTTCTG GCATGTTGGC CTTTGGTTTC TCATATTATG
25301 GGACATATGT TTAGTGCTTG TGGTATATGC TTAGCCTACT CTTGTAGGAT
25351 GACTGAGACC TCACACAACA TCAAGGACAT AGTCTTTGCC TTTGCTGAGT
25401 TCAGAGTGA ATTGGAGTGA TGAACATAC ATGTGAATAA ATGCAAAGTC
25451 ACAAGTAAAG ACAGTTAATG TGATTGATGA AGGACGTGTG GCACAAGATG
25501 GATAAGAATG AGAAGTAGAA GAAGTAGGTG GTTTTGAAC TTCGTTACTC
25551 AGGGAAGGGA ATGTATGTGG ATTGGTGGAG AAGAGAGGGG AGGAAGATGG
25601 TTTTAAGCAC TGGTAAGATG GTGCATATTT GCAAGTTTTC CTCAAGGGAT
25651 AGAAAGGGCT GAGACCCAGT GGGGAGGAAT CAGAGGGGAA TCGGCAAGA
25701 GAATTAGGGA AATGAGAACT GTCAGTAGAG GAAGTGAGAT TAGGCTGGCC
25751 GGGAGCTATT TGGGGTTTCT GAGTACTGAT GTTACATGAA GGAATATTG
25801 TGAGGGATAA ATATTGCAGT GGGTGCATTT GAGAGCAAAA CCAGATTGAG
25851 GCCCAGTTAG GGAAGGGTTT CTTAAACGTC GGCCTTTCCT ATGCCATCTT
25901 CACTTTTTTAA TTTTTTGGTG GCCATATTTA GATATCAGCT GTGTCACTAT
25951 ATACTTAATA TTTTCTGTAA GTTGATTTC CTTTTAAAAA CTTAAATTTA
26001 GCTTTGCCCT ATGCAATAA CTTATCATG TTTACTGAAT GCTTTTCTTT
26051 AAATTTAACC CTTTAAATCT TAAATAAATG TAGCCTTACC CCAAGCACTA
26101 GTACCTATGA AATCATAGGT ATTCTGTGCT AGTTCTATTT TTCCAAATGC
26151 ACAGTAAATT AAACCTGCGG CCATTAATAA AATGTTGCAT ATGTGTGTTA
26201 CCTAATGCTG TCTTGTGTAC CTATGGTTCA TGTGCTACAC TTTTGGGAAT
26251 ACCCAAGGCA CTGTTACAGC TTTCTAACTG TGACATGATG AAACGTAATA
26301 AATAGGAGCC AGCTACATTT ATTAGATACT TACTGTGTGC AAGCCCTTGT
26351 GATGGAGGAG ATGAACATAT GATGCAGTCC TTA CTCTTAA TAGATTGGA
26401 ACAAAGCAGA GAGAGAATGG CACACCAATG AGAAAGTGAG ATGTAGGCCT
26451 GACAGGTCCA ATCTCTGCCA TGTAAGCAG CTTTTAGATA AGCCATCTGA
26501 TATCAGCTCT GCCACTGGTC AGCTGAGTGA GCTGCCACTC TGGAACCCAA
26551 GGGTAAGCTC TCCTCAAATT CAGTTCACCT CAACAAGTAT TTGCCAGATA
26601 CTATATGACA CTTTTCGAGA TATTAAGGAA ATTAAAGTGT CTTAGGGAGT
26651 GTTAAACCAG AAACCAAAGT ATGAAGTGG AGACAGAGTG GAATAAGGAC
26701 TGTAAGAGAG ATGCAATGAC ATGTATTGG TACTTACGGG AGGAAGAGTT
26751 TATAGCCAGC TTTGGGGACC AGGGAAGGCT TCCTAGAAGA TGTGTCATTT
26801 CAGATGAACT TTAAGAGATG GGATCATACA AAAGGCAGTG ATGGAGGGTG
26851 TTCAGCAGAG GGAAGGGCAT CATCATGACA ACAGAGAGGG AAACAGAGGC
26901 ACCTGTGAGG AGAAGAGCAA GTCTCCGTTG TTTGGTGGTG ATGTTGGGGG
26951 CATGAAGGTG GAAAGGAAGG TTGGGGCTTT ATGGATACCT TACATGCTAG

FIGURE 31



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

27001 GTTGAACATG GATTTATTTT CACAGATGAT CAGGAGCCAT GGAAGGCTAC
27051 ACTAGCTGGG CGTACATAAT TTAAGTCAGA GGGACAAATA ACTGCAAGCT
27101 AAATACTCTT AGGGAGAAAC TGCAGCAATC TGGGTGAGAA ACAATGAATT
27151 TGTGAGTAGT CACCATAGCA AAGGTCTGGG CTAGGGGGGC ACTGGAGGAG
27201 TGAAAAAGAA AGGTTTAAAT AGTCACTGAG AGGGCTGAGG ACCCACTAGC
27251 CACTGGCATA GTGGAGTCAA TCATTTCTCC GAAATTACGA GGAGGAGAGG
27301 TGGGGCATCT CTAAGGCGTG GAGCAGTGGA GGATGGTGAT TGTATGGTAG
27351 GGGAAAGAAG ATAATGATCG CAGTTCCAGT AGGTGATGGA TGAGGAGGGG
27401 AAGGCGTTTT ACAGATTATT CACTGGGAAA GAACAGAGGC AGTCCACACT
27451 GTAGTTAATT CCTTTTATTT TTGTCTTTAA GTATACTCAA GGATAAATAG
27501 CCATACAATT TCTGTTTGGC TTTTCATGCT GGAGAGGTGC AGAGGTTGCA
27551 CTGAACGTGG ACGATATTAA TTTTGACTTG TACAAGGGTA CTGTGTCTCTG
27601 GGAAGTGGCC AATAATATTC TATGAAAAGT CATTTGAGTA ACTCATTTTTT
27651 ATACATAAAA TAGGTAGTTC CTTTTCAATT TCCTTATATT TTGGGATACT
27701 TACATGCCAG GATTCCTCTA TTTCAATCTC TTGTTTCTA CCTGAAAAGA
27751 TCTTACGTTT GGTGGCTGTG GATGCAATTC TGCCTTTACA CAGAAATGAC
27801 TCTCCTGGGC ATACCTTTAG GCAAAGAGCA GATGAACGCA TAACGAGCAG
27851 CTTTGAGATT TGGTATTCCC ACTGCAGAAC GAAGAGAAGG GTGGCCCACT
27901 GGAAATTTCC TCAGAGAAAC GTCTAAGTCT GCATCTCCCA CATCCATTCA
27951 TTTTCATGCA TAGTTCCTTC ATCTGTTGTT TTTTAATTTA TCTATTTTAT
28001 ATAATGTCTA TCTCTGTAGT ACCTGGGATG AAATGCGCCA ATCCTGACTG
28051 CAATGAATAG GGCAAAAGCAA TTCTTGGGAG CTGCTCTGGG CAGGAAGTGG
28101 AGGCTGAATT CTTTTAAAGG AAAATTTTTT GGGGATCGTG ACTCACTGGC
28151 CTTTCATCCCC ATCATCACTG GGATTGGTTA AGTGCCAGGA AACAGCTGGA
28201 AGTCGACAGA CAATTTAGGG TACAAATGAA AGGAGAAGTT ACTGTTAAAG
28251 GGATCTGTAT TCTCTGTTAT CAAAACCACC AACGCTGTCT CCTAGCTAAT
28301 AGGAACCAAA ACTGTGCCCT GAGAATGCTG CCAGATGTTT CTCAATAGGC
28351 ACGTTACGTT TTATGGTCCT GGATGCTGCA CTTAAAAATA GTGTCCAATT
28401 TCAAACTCAC TATTAAGTAG ACACTAAACT TTTGGAATCT ATTAATGGAT
28451 CTAGATCTCC AACCTAGTGG CAACAAATGT TTGAAGTGAA GTTTATTGTT
28501 TTAAGTGAAT TTTAAATGTG AAATGATGAG TATTTAAGTT CAATTTTTTT
28551 GCATGATTTT TCCACTGTGG CAACTTTCCT TTTAAATGA TAGAACCTCA
28601 TTATAATGTG GCTGATAGGA AATCTGTTA TTCATGCATA TATTTATTCA
28651 TTTACAAATA TTTATTTACT ACCTACCAGG CTCTGTGCAG TACTCCGATA
28701 AACTGGAACA AGAGCCATAT TTTGTACTTT GTATGTTTCT CCAAGAGAAA
28751 TGTTCTATTG TACTACATTA ATTCTTAGAT GCATTTTGA ATTAATTTACC
28801 CTTCTGAAAT CAGAATGTGT CTTACTAGCA ATATGTCATA ATTTAATTGG
28851 CAATTTAAAT TTTCAAGAGG CACATAAGAT AATGATGTGT TTTGTAATTG
28901 ACAATGCTTT GATTTGATAG AAGATATTTG TACAATACTA TATTGGTACC
28951 ATGCTTTGGC CGATGTAATG GTCCTATTTG GAGTTCAC TAATGTAA
29001 GCCTCTAGTT TTAGGCGTTG ATGTTGGTCC AGGGACACTA GGAAGTCAA
29051 GCCCAGATGT CCAGGTCTAA GAGAGAAGAA TCAGAAGGTG AATGCAGAGC
29101 CCAGTGGGTT CAAGCCATGT AGACAATAAT AGCAGAATGG AGAGACATTT
29151 TCCGATGCCT CATGTCTATG CATCTTCTCT CCCTTTCTGG CCTGCCACAT
29201 AAATTCATTG CAGTGCAACT CTGCCAGATA TCAGAATAGA GCAGGAGGAA
29251 AGAGAAACAG CTGCAGCATG GGAGATAGGA CTCATACCAA GAGAGATTAG
29301 GCTCGGTGTG TATACCTAAT GATGGTAAAG TGAACAACCA GGTACAGTG
29351 ATAGCAGCAA CACGCATTTA TCGAGTGTCC TATCCACTTC AGAAACACTA
29401 TTTTTAAATG ATAACAATTC TACAAGATAA GTATTCATTG ATCATCAATA
29451 TTATCCTTGT TTCATGTGTA AAACGGGGC TCAGAGAGGG TAAAAAAGTT
29501 GTCCAAGGTC ATACAGTTAG GAAATGGTAG AACCAGGATT CAGGCTTTGC
29551 TCCATGGGGC ATCAAGGTCT GCTCCACTTC CAGTGTGCCA TGCAGTTTCC
29601 CCAAATCTGA GAACATGCAT TTACTTTATG TCCGGTTATG TGAGGTCTCA
29651 GAAGCCAGAG AGGGCCAGAG TATGAAGAGT TACATAAAAG AGCTTCAGAA
29701 TCTAATAGGG TTCTGAGCA AGATTCTACC AATACCTGGA ATAACCTCCT
29751 CTGTGTATAG CCCAGGTGCA TGGACTAGAC CAGATTGGGA GGGGATGGTT
29801 GCCCAGCAGG CCCAGAGAAG GAGCTGGTAG CATGGTGAGT TAAGGGCTGA
29851 GGATCAAGAA TTTGTTAGTT TAATTAGACC CCCCAGAG CAGAAGTGCT
29901 GTTGTAGTTA AGACTCTGGA ACTCAGTGAT AGGATATTTT AATAAAGCCC
29951 ATGATCTCAA GAGGAAGTTG CTGAATGGAT GAGCTCACAG TCCATAGTTG

FIGURE 3J



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

30001 GGAGCTAATG AACAACTTTA ATTATGTTTC TGATACTAGT GGAGGTGTTT
30051 TCCTGTCAAT GAATTCCTTT TAGATTTTGA CCCCATGTAG ATCTCAAGGA
30101 AATAAATAAA TAAATAAATT AGTTAATTAA TTTATTTATT TTGAGATGGA
30151 GTCTAGCTCT GTCGCTCATG CTGGAGTACA ATGGCACGAT CCCGGCCCAC
30201 TGCAACCTCT GCCTCCCTGG TTCAAGCAAT TCTCCTGCCT CAGCCTCCCG
30251 AGTAGCTGGG ACTACAGGTG CCCGCCACCA CGCCTGGCTA GTTTTGTAT
30301 TTTTAGTAGA GATGGGTTT CACCATGTTG GCCAGGCTGG TCTCAAACCTC
30351 CTGACCTCAG GTGATCTGCC TGCCTCGGCC TCCCAAATG CTGGGATTAT
30401 AGGTGAGCCA CCATCTCAAG GAAATTTAAA ATGTTTGGGT TTGCTACTGA
30451 AGAGCCAAGA AGAATTTTGC AAATTATGAG AAAGAGCCCA AGCTTTCAAA
30501 TGTCCAAGGT GGCTATTCAT ATCTGGGAAC TAGGAAGAAT TCCAAGTTGT
30551 TCACCTATGC CTGTTTCTAA TGCCTTCCCA CAAGGGTGAC AGAGCAAAGT
30601 TGATTTCTAT TAATTTAGGG GAAATAATCT CCACTGAATG GCCAGAACAA
30651 TAACCTTTCT AATGACACAC AGAACAACGC TACTGTCACC CTTGTCACGG
30701 CTGTACTTGT CATCATAGGT ATTTATTAGG TACTTAAATA CTTGTTGGC
30751 TCAAGATAGC TCACAAAGAG GGTCAATAAG TCTCGTTTTC TGTCTTTAG
30801 AGTTTCCAGT ATAAGAACA ATAGATGAGC AAACACATAT AAGAAATACA
30851 TTGAAGAGAA TTAGAAATATT CATGAATGTA CAGTGAGAAA TTCTTAACCT
30901 ATACAGGGTC ATAGTTGACT TCATTTAAAT ATTTTCTAAG GGTAGAACGC
30951 AACATTATTA GAATACCTGA GAGGGGAAGG TTGGGACCGT GCCCTTGAAG
31001 TAGCATATTA AATTAAAGAG AGGAAAGAGA AAGCTGGCAA TATTCAAGT
31051 CTGGAACCTGA TCCTTAAGGC AATACTTTGC TGCTGGAATT TGTATTTAA
31101 AGACCAGCCA GAATCTCTTG TGGTCTTTG CCCATGTAGC CCTATGAGGA
31151 CGTTTGTATA TTTGGATTGC TTGAGGCTG AGTGTCATGG GCATAGGCAG
31201 AGTCATTGGA TCAACCCATG TATCTGTTGC TTGACACATT GCTCTGGATA
31251 CATTGTACCC AAGAAATCAG CCCAAGTGGG ATCCAGCCCA AAAGAGAATT
31301 GTTGATTTTC AAAACTGAAC AGTCCAGGCA AAGCTCAATC TAGGGCTCAG
31351 ATCATGTCAT CAGGACTGCA TAGTTCTTCA TTTCTTGATT CGTCTTCTTT
31401 GCATTGCTCT ATTCTTAGGC AAGTTCCATC TTGGAAATCC TAAGGTGGCT
31451 GCCGAAGGCT GCAGACCCCT CTCTGTCTTC CAGATTTACA TCCTTCAGGA
31501 GAGCGAAAGC TCAGTTCCCT AAGGCTGAAA CAAAAGTCTT GCAATGGCAT
31551 CTTTTTGGTC CTGATTGGCC TGTCTAGGGT CAGATACTCA TTCTTTAATT
31601 ATCATGGTGG TGATTGGGGG AATCGAATGT GCTAATTGGC TTTGCCTGGG
31651 TTGTGTGCTT CACTCATGGA ACCTAAGAGA GAAGCCAGT GAAGCCCAAC
31701 TCAAGGGCTG AGAGTGGGCT GTAGTGGTTT CCCTAAACAA AATCGTACT
31751 GTTGACATAA TATGGCATGG TCATGGATGC TGAGAGAATG ATGTAGAGAA
31801 AGGGTGGATG AGAATGGAAG CAGGACTAGG CACAGTGGTT CACACTTGTA
31851 ACTTCAGCTA CTTGGGAGGC TGAGGCAGGA GGATCGCTTG TGGCCAGGAG
31901 TTAGTGACCA GCCTGAGCAA CATAGTGAGA CCCTATCTCT AAAAAAATTT
31951 ATTTTAAAT TAGCCAAGTG TGGTGGTGCA TGCCTATAGT CCCAGCTGCT
32001 TGGGAGACTG AGGTAGGAG ATCGCTTCA CCCAGGAGT CAAAGTTACG
32051 GTGAGCTATG ATTGCACCAC TGCACACTAG CCTGGGTAAA CAGAGCAAGA
32101 CTCTGTCCAT AAAAAAGAAG AAGGAGGAGG AGAAGGAGGC TAAGAAGAAA
32151 GGAAGTGGGT ATGCTAGTTT GGAGGTATTG AAGTCCAGGC AAAGAATCAT
32201 GGTGGCTTGG ACAAGCAGAG TGACTGCTGA GATGGAGAGT GGTGGATGGG
32251 TTTGATTTCT AGTTTGGAGA TGGAATCCAC AGCATTGCT GATGAAATAC
32301 ATGTTGAAGA TGGTAAGGAA AATAATTAAA AATGATTCCT AGGCTTGTGG
32351 ACTGAGTAAC TTGGGAGGAT GGTGGTAGCA TTTCTTGAGA TAGGTAAGAA
32401 TGGAGGGTTT TTATTATTTT AAAATCAACT ATGCTATTCT AGCTCTGTGG
32451 GATTTGAGAA GCCTGTTAAT ATCTGAGTGG GAATGTCAAT TGGACAGTTG
32501 GAGACAGGAG TCTGGAATTT AGAGGGTAGA GCTGGAAATA TATATTCATG
32551 GATATATGAA TCCATAATGA GAAGGGGTGG CTATAGCAGT TTTTATTTTT
32601 ACTTTTAAAG CCATTTAACT AGTTTATTAA ATTGGCGGGC CTTCTTGAGA
32651 GTACAAACCA TAAATCACTT CATTTATCTT CAACTCCTAC CTTCACTCTT
32701 GCCCTGTGAG GCCAACCTG GATGATACAC CAGAAATACC TCACAGCTTT
32751 TCCAGGCACT TTAATAATCA AATCAAGTAA AATAGAAATA AAAATTGTAC
32801 TTTTTTTTTT AGATATTCAA AAGTCCAGTT TTACATGAAT CAAAACATCA
32851 ACCTCTCATC CAATTCAAAG CTCTCTTCA GCCGGGTGAG GTAGCTTGTG
32901 CCTGTAATCC CAGCACTTAT GGGAGGCCGA GGCAGGCCAT CGCTTGAGCC
32951 CAGGAGCTTG AGACCAGCCT GGTGAAACCC TGTCTCTACT GAAAATACAA

FIGURE 3K



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

33001 AAAC TAGCTG GCGTGGTGG TGTGTGCTG TAGTCCCAGC TACTCGGGAG
33051 GCTGAGGCAC AAGAGTCGCT TGAACAAGTG GGGAGGACTT TGCAGTGAGC
33101 AGAGATCGTG CCACTGCACC CCAGCCTGGG TGACAGAGCC AGTCCCTGTC
33151 CAAAACAAAA CAAAACAAAA AAACCTGTAA TCCCAGCACT CTGGGAGGCC
33201 GAGGTGGGTA CATCACCTGA GGTCGGCAGT TCAAGACCTG CCTGGCCAAA
33251 ATGGTAAAAAC CCCGTCTCTA CTGAAAATAC AAAAAATTGG CTGGGCATTG
33301 TGGCGGGTGC CTATAATCCC AGATATTAG GATGCTGAGG CAGGAGAATT
33351 GCTTGAACCC GGGAGGCAGA GTTTATATTG AGCCGAGATC GCGCCATTGC
33401 ACTCCAGCCT GGGTGACAGA GGGAGACTCC ATCTCAACA ACAACAGCAA
33451 CAACAACAAA ACAAATCAC AAAGCTCTCC TTTCCCTGTA GGCCAGGCCT
33501 GGCCTGAGAC ACTGCAGATC AGCCATGGGA AAGGGAAGGC GGGGGCCGTG
33551 GCTGTTCCCTT TTCCCTCCTT GTGCACACTC CTTTCTGCT GGCTTTGCTG
33601 CTTTGGCTC CACCACAGTC AAGGGGCGAG GAGAAGGTGA CTAGAAAGCA
33651 AGGTGTTTT ACTTAGCTGG TGCTTCTTAT GGTTCCTTCT AGTCATGAAA
33701 TAGTCTCTGT CTTGCAGTGG TCCAGCTTTT GTGAGTTCTT CGCCACCCTG
33751 TGAAGACCCC CAGACTTTCC TCTACAGACA TGGATGATGC CCTCCCTGGC
33801 TGGTCTCTTA TGACACCCCC GGCCTCTCAG CTTCTGCCTT GAGTGTACCC
33851 TGAACTTTTT TTCTCAAGTG GATGGACTTC TTGGGGAAGG CTTTTTTCTG
33901 AAGGCTTTGA TGTAGCTTCT GACCCCATCC AGTGCCTACT TGGCCCAGGA
33951 GAAACCATTA GGCATCTTTG TGCTGCCATA TATGGGAAA GCACGTGACT
34001 CCACGTGTC CTACCTCCT CAGCCTGCAT TACAGGCCAA ACGCTGCGCA
34051 CCCATGTCTG ATTTTCCAG GGCCGTCTCA TTGCACACCT CCAGAGGGCA
34101 TCATTCACAT GTGTTCTCCT AGAATTGCAC AGTTAATGTG GCAGCCCTGA
34151 GTTCAGACAA ATCTCTCATG CCCCTACCTG TAGCAGTGCA TTCTATGAAG
34201 TATGCAGTTC AGCAGGCACC CAGCTGGGGT TCCAGATGCT GAGACCCCTT
34251 TCTGCCAACC CCTCTGATCT CTGAGCAGTT CTCTTTCTGC TCCTTCATTT
34301 GCCATAGTGC TGCAATGCTA TGTGTTCTTT TCTGCTAAGA AATGCTTTTT
34351 CTCCAGCGAA TTCTCTTATA TGGCTTAGAG ATCATATGCA AGCTCTGCAT
34401 TGATGGATCC TCAGTCTTCA GTTTTGAGAG ATCTCAGTAT AAACCCCAAG
34451 ACAACAGGAA AGGGCTCACT TAACATTGCC TTGTAACAGA GAAACCCTCT
34501 CTTTGAATGA AAGCTGTCAG GGAAGCTCAG TATATAAAGC AGGTGACATG
34551 GTGCTCCATT GGGGTGGTGG GGAACGAGGG GCGGGGTGCT CAAGGCTGGC
34601 TTCTGTGCAC AGTTAGAAAA CTCCTGTGCC TGAGAAAGCC AACCCTGGTT
34651 TCCACGACCA GGAGTTTCCC ACTATTTACA GTTCTGCAGT GTTTGGCTTC
34701 TTCATGATTT TCTGCTGGTG AAAGCAATAG TTTGTACAAG ACGTGTGGGA
34751 ATAAAAATAG TCCAGGTGCT GCCCTTTTCC GCGGCAGAGG GACCACCTGT
34801 CAGGCTGCCC TAGTGGGCCT CTTCCACAG CACGGTTCTG CCACTTGAAT
34851 ACCTCCCTGC CTGTTTCTG ACGCTGACCT AGAAGCTTCT GGTGAATGCT
34901 TTGCTTCTGC ACAACTTGCA TGGTGGGTGC CTTTTTTTTG TGAATGAAAA
34951 GGTCTTCTC TGGCTCTGAA TATAGCAACT GCATGACCTG CAGAAATAAT
35001 TTTGTTGTTT CTTGTGGGCC ATGTTAGCTT AGGGCTTTGT ACCTTATAGG
35051 GACATTGCA AGAATTTTCT CAAAAGGTTT TCATCTGTAA ATTTTCATCT
35101 TTGCACATAG TAGAGAGCTT AGAACGTCAG TCTCGTTCCA TCTGTTATAA
35151 GTTTTGAGGC TTTGGGCAAA GTACCTAACT TCCCTGTGCC TCGATTCTC
35201 CATCTGTAAC ACTGGAGCAA GAGTAGAACC TCCATCCTGG TCTGCGGTGA
35251 GGCTTAGTGA GGCATTCAT GTGAAATGTA CACAGTGCC TGGCAGAGC
35301 AAGCACCCAG AACATGTTAC TAATTGCATT AGTTTCCTCT TGCTGCTATA
35351 ACAAGTTGCA CAAACTGCAT AGCTTAAAC AACACAAGTT TATCATATCA
35401 TTCTGCATGT TAGACTTCCT AAGTGGGTCA TATGGGGCTA AAATCAAGGT
35451 GTCCACAGGG CTGTTTCTCT CTGGGGGCTT TAGGGAGAAT CTTCCCTTG
35501 CCTTTTCCAG CTTCTAAAG CTGCTCATGT TTCTTGGCTC ATGGCTGCAC
35551 CACTGTAACC TTTGCATCTG TCCTCACATG CCTCCTCTCT CTGGCCCTCC
35601 CGCTCCCCCT TGTGATTACA CTGGACCCAC CCAGATAATC CAGGATCATC
35651 TCCTGATCTC AAGATCTTAA TCACATCAG AAAATCCCTT TGTCTGTAA
35701 AGTAGTAAAG TAATGTGCTC ACAGGTTCCA GGGATCAGGA CATGGACATC
35751 TTTGGGGGAC CGAACATTAT CCTGCTGATC CTACCAATTA TTTAAAAAGT
35801 TGTCTGTAA GTATCTACAG TGTGCCTCTG CTGTGTGCTG GGCATACAAG
35851 GTGAATAAGA CACAATGCTT ATGCCAAAAT AGATACACAA GCACGATGCC
35901 CTTAGTAATA ATCACAGTAG CTGACATTTA CTGAGTATTT ACTATGTGCC
35951 AGGCATTGTG CCAGGCACTT CAAGTGAATT ATCTTGCTGA AATCTCACCA

FIGURE 3L



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36001 TGGCACTAAG GGAAAGGTAT AATTTCCATT TTAAGGATAA GAACACTGAG
36051 GCTTAGAGAG CTTAAGTATT TTTTCTCAAG GCCACAGAGC TAAGGACATG
36101 AGCTCAGGTC TATCTGATTC TAAGCTTGAA CAATTCATCA CAGCCCCCTT
36151 AAAAGATGGG TGGGTTTACC CTCAGGCTCT CTTCTTCACT GTGTGTGTAG
36201 CTAAAGATTG GCCAGCTTAA GAGGAGCAGA TCACACAAGC AGCTATGATG
36251 AGGGCCAGTG GGCAGAGCTC CCAGAGGAGG CTGATGCAAC ATTGCTCCCA
36301 TTCTTGCCAT CACCCAAAGC TGCAAGTCCA TGGCCCTGGC ACTTGGGCAA
36351 ATGTTGCCTT GTCTTCAAGT GAATCTAAAA AACTGTGTAA GGGCATGATT
36401 AATTCCACCA AACTGGATTC TCCCCAAGAT CACTTACACC AACTAATGG
36451 GGCCCTGCTT CAGCCTGAGG AACTGTGTGA ATAAAAGAGA AGAAGCCCAG
36501 TGAGATTCTT CTTTCATGAT TAATAGAAAA ACCACCTGGT GACTTTAAAA
36551 GGCAAAGAAG GAGGTACATT CAGATGAGTC AGAAAGAAAA GGCAGCATTT
36601 GAATCCTAAA GGCCATGTTA CTCTTGATCT TCTCCAGGAT TTCTTTTAGG
36651 GAAATGGAAA TTTTACATG GAGGGCAGAG GTGGGGTGAA GGTGGAAGTG
36701 TAGATTGCTT GTGTCTTATA TGAGACCAAC CCGGGTGCTG GGTGAATCA
36751 TATATTCTAG ATGGGAAGTT TATATTCTAA TGAGGGAGAC ACACAGGGAA
36801 TGAGCAAATC AGTACAGAAT ACAATCTCAG CTAGCACTAA GTTGCTTTGA
36851 GGAAAATCAA GCCAGGTGGT GGGCTAGGAA GAGACTGGAG GGGAGAATGG
36901 CCCTTCTGCA GTGGGGTGGT GAGGAAGGAA GTCCTCGCTG AGGAGGCAGC
36951 ATTGAGCACT GAGAGGGAGC TACCCTGTAA GGCCCTGGGC AAGACTGTTC
37001 CAGGTTGAGG GAACAACACA CGTGCACTCC CTGAGACTAG AGCTAACTTG
37051 GACAAATGAG AAGACCAAGT TGGCTGGCG GTATTGAGGG ACAGATGGTA
37101 GGAGATGAAG GTGGAGAAGT GGGCCATGGC CAGAATTTGG GGATCTAAGG
37151 ACAGGAGTTT GGGAGGTTCC TCAAGGAGTT GTGGGAACCC TCTGGGAAGG
37201 TTTTCAGCGT GCAGTGGAA GATCGAATTT ACATTTTGGC AGGCAGGTTA
37251 GGACACTGTT GTGCAGAAAC AACAATGGCT AATGGGCTGG TTGAGGTGGG
37301 AATGAAAGAA GTGGTGGAAAT GAAATCAGGA TGTATTTGGA AGGGAGAGTT
37351 GGCTGGACTG GCTGTGGGTG TCAGGGCAGG GTGGAGCCAT AGACTACTCT
37401 GGATTTTCTG TCCAAGCCCT GGATGAATAG CAGTACCATG AATTGAGATG
37451 CACAAGCCTA GGAGAAGAGG CAGATTTGGG ATGTGAATGT GTATGAGTGA
37501 AAACAAAATT TCTCTTTGAA TCATGTTCAA TGTGCTACTT GGACAAGCAG
37551 CTAATTGGAC AACTAAGTGT AAAAATTAAA TAGTGAACAA TGAGTGAAGC
37601 AAAACGTTAG AGCTGTACAT TTTGCTTTAG AAGGGGCATA CTTTTTGCTT
37651 TAGAACGTGT GGCAATCTAA TACAAATGGC CAACAAACAT ATGAAAAAAT
37701 GCTCAACATC ACTAATGATA AGGGAGATGC AAATCAAAAC CACAAAGCGA
37751 TACTGCCCTA CCCCTGCAAG AATGGCCATA ATAAAAAAT CAAAAAATAA
37801 TACATGTTGG CGGGGATGTG GTGAAAAGGG AACACTTCTA CACTGCTGCT
37851 GGGAATACAA CCACTATGGA AAACAGTGTG GAGATTCTTT AAAGAACTAA
37901 AAGTAGAACC ACCATTTGAT CCAACAATCC CACTCCTGGG TGCATACCTA
37951 GAGGAAAAGA AGTCATTATA CGAAAAAGAT ACTCATACAT GCATGTTTCT
38001 AGCAACACAA TTCACAAATG CAAAAATATG GAACCAGCCC AAATGCCCAT
38051 CAATCAATGA GTGGATGAAG AAATTGTGAT ACACACACAC ACACACACAC
38101 ACACACACAC ACACACACCA TGGGAATACT ATTCAGCCAT AAAAAGGAAT
38151 GAAATGATGG CATCTGCAGC AACCTGGATG GAATTGGAGA CCAACATTCT
38201 AAGTGAAGTA ACTCAGGAAT GGAAAAACCA AACATTGTGT GTTCTTACTT
38251 ATAAGTGGGA GCTAAGCTAT GAGGATGCAA AGGCATCCTC ATTGGACTTT
38301 GGGGACTTGG TGAAAAGGGT GGGGGCAGTG AGGGATAAAA GACAGCAAAT
38351 TGGGTACAGT GTACACTGCT CGGGTGATGG GTGCACCAAA ATTTCAACAAG
38401 TCACCACTAA AGAGCTTAGT CATGTAACCA AACACCACCT CTTCCCCAAA
38451 AACCTACAGA AATAATAATA AAAAAGAACT TGTGGCAATC TAATTGATGA
38501 TAATTGATGG TAGCATCCAT GTTGGGGAAG GAAGGAAACA ATGCCAAACA
38551 CTATGCTAGC TGCTTCACAT GTATTGTTTT TCACAGGGTG TAAGGCTTGA
38601 GAAGCATCTA GTGTCCTGTG TCAGATTATG CATTCTGGAG GCAGATTGCT
38651 AAGGTTCAA GTCCTGGCCCT GCCTGTTAGT GGCATGTTCT ATGCTTTGCT
38701 TGCTTATCTG TAAATGGAG TAATAATAAT ACCTTGCTTG TAAAGTTATT
38751 TTTACATTTA AATGAGTTAA TGCATGTAAA GCACTTGGA TAGTGCCTGG
38801 TATTGTAATA AACAATAAAT GAGCAATTTT AATGTTACTA TTTTATTTTC
38851 TCCGTAGGGT GCACCTCAAT AGATGGAAGA GTAGGGCATG TGATAAGGTT
38901 TGGCTGTGTT CTCATCCAAA TCTCATTTTG AATTGTAGCT CCCATAATTT
38951 TCACATGTTG TGGGTGGGAC CAGGTGGGAA GTAAGTGAAT CATGGGGGCG

FIGURE 3M



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

39001 GTTCCCCCAT ACTGTTCTCG TGGTAGTGAA TAAGTCTCAT GAAATCTAAT
39051 GGTTTTTATAA GGGGTTTTTCC CTTTCACTTG ATTCTCATTC TCTCTTGCCT
39101 GCTGCCAAGA AAGACGTGCC TTTCACCTTC TGCCATAATT GTGAGGACTT
39151 CCCAGCCACA TGGAACGTGT AGTCCATTAA GCCTCTTTTT CTTTATAAAT
39201 TAATTACCCA GTCTCAGGTA TGCTTTTATC AGCAGTGTCA AAACAGACTA
39251 ATACAATGTG TTATAACAAG AGTGTTACTT CAGAATCTTG TTTTAACTTG
39301 TGTATTAGTC AGTGTGCAGG ATGCTTGGGT TCTGTCCTGG TTTTGGCCAT
39351 GTTTCCATTT TATGAGCAGT TCCTCTATCA CAATATAGAT GAATGCCTCT
39401 ATCACAATAT AGATGCAGCA ATAAGTTGGG ATTGCTGCAT AGCCATCCCA
39451 ACTTATTGGC ATAAAACAAG CATTTTATTA TGCTCAGATA ATGTGCTTCA
39501 GGGATTTCATG CAGGACACAG AGGCGATGGT TTGTCTCTAT TCTGCAACGT
39551 CTGGGGCCTC ACCTGGGAAG ATGAGCCTCA CCTGGGAAAT CTACAGGTGT
39601 CTGTGGGGTT AGGGGAGGGG GCTGAAATCA ACTGGAGGTA TCTTGGCTCA
39651 TGTGACTGGT GGTGATTCTT GGCTCTTGGT TGAGATCTCA GCGTGGCTGT
39701 TGGCTGGAAC ATCTGTATGT GATCACTGTG TTTCTCCACA TGGGTAGCT
39751 TGAGCTTCCT CACAGTGTGG CAGCTGGATC CTAAGAGTGA GCATCCCAAA
39801 AGAACCAGGC AGAAGCGGTG TGGTCTTTCA TTATTTAGCT TTGGAGGTCA
39851 CATAGTGTCA CTTCTGCTTT AGTCACAAGC CTGTCCAGAT TCAAGGAGAG
39901 GGAACATAGG TTCGATGTTC TCACGGGGGG AATATTAAAG TCACATAGTA
39951 AGGAGTATAT GGGATAGGAG AGATTGTTGT AGCTAGTTTT GGTAAATACA
40001 GTCTTCCAGG AGGCTTAACC TGTGGGCCAC TTATGAGCCT GTCTGGCTTA
40051 AAGGATCCAG TACACATCTA AATTTGGACA TACTCTAAAA TCAGGATCTC
40101 TTTTATTTAT TAAAGAACCT GAGTAATCTT AACCTAAGTT GTATTAAAAAT
40151 TCAAAGATTG ACTCCTTAGA ACAGCTAAGC TTTCGTTTCA TTAATGGGCA
40201 CTGATTGAAT CTTGACTCTG TGCAAGATCC TGTGCTAATG GCTGTGGGAG
40251 CATATTGAGA TGCCACAAGA AGTTGGCATG CTAAAAGGTG AAGACAAATA
40301 CAGTAGGCTT TCAATTAACCT AGTCTCTGGA GAGACAGAGG CCACTCACAA
40351 CCTCTAATGA TAGTTAAAT AAAACTTATT CAGGCCAGGC ACAGTGGCTC
40401 AGGCCTATAA TCCCAGCACT TTGGGAGGCT GAGGTGGGCG GATCACTTGA
40451 GGTCAGGAGT TCTAGACTAC CCCGGCCAAC ATGGCGAAAC CCCATCTCTA
40501 CTAAAAATAC AGAAATTAAC CAGGCATGGT GGTGCGCGCC TGTAATCCCA
40551 GCTACTTGGG AGGCTGAGGC ATGAGAGTCG CTTGAATCCG GGAGGCAGAG
40601 GTTGCAGTGA ACTAAGATGG TGCCACTGCA CTCCAGCCTG GGCCACAGAG
40651 TGAGACTCCA CCTCAAAAAC AAACAAACAA ACAAACTA TTTAAAACAA
40701 GACACAAAGT GAGTTTAAAT CAAACTTATT TAGTTAGCAT TGCATTTAAT
40751 GTTCAGGAAC ACATGTTCCA TTTTGTAGAC TTCATTAATT ACAACTAGCA
40801 GTTATTTAAG TGCTTACTAG AGACATTGAA TATTCTAAGC ACCCTGTGAG
40851 TATTATGTAT TTAATTTGCA CAATACAGTG AAGCAGTTAC TTTATCGTAC
40901 CCATTTTATA GATGAGAGTG AACAGTAGAG AGGTTCTCAT TTTGATGGTT
40951 AATATTGTCA ACTTGATTGG ATTTAAGGAT GCAAAGTATT GTTTCTGGGT
41001 GTGTCTGTGA GGGTGTGTGA GGGGAGATTA ACATTTGAGC CAGTGGACTG
41051 GAGAGGAAGA CCCACCCTTA ATCTGGGTGG GCACCATCCC CTTGGCTGCC
41101 AGCACGGCTA AAAAAAGCAG GCAGAAGAAG GTGGAATGAG CAGACTCGCT
41151 GAGTCTTCCA GCTTTTCATCT TTCTCCCGTG CTGGATGCTT CCTGCCCTCC
41201 AACATCAGAC TCCAAGTTGT TTAGCTTTTG GACTCTTGGA CTTACACCAG
41251 TGGTTTGCCA GGGGCTCTCA GACTTTTGGC CACAGTGCAC TGTCGGCTTC
41301 CCTACGTTTG AGTTTGTGGG ACTTGGGCTG TCTTCTTGC TCCTCAGCTT
41351 GCAGATGGCC TATTGTGGGA CACCTTGTA TCATGTGAGT CAATACTCCT
41401 TAATAAATTC CCTTTCATAT GTACATCTAT CCTATTAGTT CTGTCTTTCT
41451 CGAGAGCCCT GACTAATGCA GTCATGGAGG CTGGCGTTTG TACCCAGGGT
41501 CTCCCAGTCC CCAGGTGCAT GCTCAATGTG ACAGGGCTAG TTAGTGCAAA
41551 GCCGGCCTA GAATCCAGGT TCTGGATTTT CTTCTTGGTG TTCTTTCCCTC
41601 TAGACTTGAG GTTTTGAATT GTGTTCTCTGA ATCTTTTGGG TCCTAAAAAA
41651 GTCTTGGGAC CTGCTGCAGG GGTGAGAAG AAGCAAAGCT CATGTGACTC
41701 TAGGCCCTTA CTCCTAAAGT CAACCAAGTA GCATGCTTTG AGGTAAATTA
41751 TATTGTGTGA AACTTAATAT ATGATACATA GTATAATGCA ATACTTAATA
41801 TATATTTAAT ATATTTGTAA CATACAAAAT ACAATATCCA AGAGCAGTAT
41851 GGAACACCAA AAGGTGTGTA GACTTTTTTT TTTGAGACAG TCTCGCTCTG
41901 TCACCAGGCT GGAGTGTGGT GGTGCAATCT CAGCTCACTG CAACCTCTGC
41951 CTCCCTGGTT CAAGCAATTC TCCTGCCTCA GCCTCCTGAG TAGCTGGGAC

FIGURE 3N



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

42001 TACAGGTGCC CACCACCATG CCTGGCTAAT TTTTTTTTGT ATTTTGGTA
42051 GAGACGGGT TTCACCATGT TGGCCAGGAC GGTCTCGATC TCTTGACCTC
42101 GTGATCCACC TGCCTTGGCC TCCCAAAGTA CTGGGATTAC AGGCGTGAGC
42151 CCCTTCCTTC AAATGGAATT TTATATCTGT GTTTACATTT TCTGCTAAA
42201 GTTTGAATTT TGTTTAATTC AATTGAATTT CCACTTAAAA TGTAACCTTT
42251 TGAAACCCAC ACCTCTGACA TATCCACAT TGCTGTTGGA TATTTTAGT
42301 TTAAAGATTT GGCCTGTAAG CTGTATCGGT ATCATTATTC TAACTTCAGG
42351 CTCAAGGTCT TGCACACTAG TTAAAGTCTT TTCTACCGGC AAATCTGTAT
42401 TACCATCTAC TGTGGAAGAT AACCTCTAAA GTGCCCATGT AAGCACAAAT
42451 CCATAAACT AAAAGTCAAA GAAAAAGAG AAAGAGTTTA TTCCACTGTT
42501 TAAAAGTTCA GTTTGATTTA GATCTTATAT CTCTTGGGTT TTCTTGACTG
42551 ATTTTTTACA TAAATGTGTC CCAGAAAGAG TGATCATATC GTGATCTTTG
42601 TTCCAGTTT TCCTTTTCCA CATCAAGTTT TCCTGATGGA AAGTGATTTA
42651 AAAAAACCTT TAAAGTGTGA TAATCACTCT CTCTTTTAGT AGACAGTGGA
42701 GTTTAATAGA TGCATACAGC AGTTGTTTAC TTGTGATGAA AAGAAATGTG
42751 AATTTTCTGG TGCAAGGACA TTTCTAGCTC ATGTCTAAAT TGCAGAGAGA
42801 CCACAGTTTG ACATAGTGCT GAAGCAGGTT GTAAGAGGTA GGGGTACAAT
42851 GTATGTCTGC ACAGGTGTG CACTATGCGA CTGTGAATGG TGTCTTCTGG
42901 AATTGTCTAT GCGGAAGCAC TGTCAGGAGG TCGTGGAATC CAGCCTCTGT
42951 TGATTTTTGT GCATGGGAGA GCTTGATACC AAGCCTCAAA GTACTAGGAA
43001 TAAGAAGGTA TTACATGCTG TAATTTTCAA GGTGGTGCCT TTCTGTACCT
43051 CCATTGCTTT TAGTTAGGG CATTCTCTCT GCAATCTTTG GAGGGTTCCCT
43101 AGGAATAAAA AAGTAGCTAG TTTGAGACAG TGTGCAATTG TGCTGAAATG
43151 GAGGACCATG GGGGTAGATG TAGTTCCTTT CATGCCAGTA GCTAATTGGC
43201 TTAGTTTGCT GATTTGTTC AGGATATTC CTAAAAATAG GTGTCTTCTA
43251 AGCCTCAGCT TTGGGCCCTG AGGTATGGCA TGGCTATCCG CTCTCTGCTC
43301 CTGCTGAGCT AAATGCAGTC CTGAATGCCA AATATTGAGA TTTGGAATTA
43351 TCAAAGGACT ATTACATCA AATTGAGAAA CTCAAGCTAA ATTTGCAAAT
43401 TAATACAAAA TCATGAACCT AGCTTCTCTT CCAGAGAACC TCTTGTAACA
43451 GAACTTGAAG GTGGCAGGAT GTCTTGATAG AGCGTGGATT TTAGAGCTGG
43501 ATGCATGCTG GGCTTATATC CTGGTTCAG CATTTCCTTT GGGCAAGTTA
43551 TTTACAACCT CTGGTTGAGG TGGTTGGACT AGTTGATATC TATGATTCCT
43601 TTTTAAGTAA ATAACATTA GTTTTTTCAT ACAGTATAAT TACTATATAA
43651 CAAACATCTT CTCTTTTATG TTCATTATG CATTCAAAGT ATTTATTAAA
43701 TGCCCTCCAA TGCCGGACAC CATACTAGGT ACTGGGTATA TAAGAGTGAA
43751 CCAAATGAGC AGGGTTTCTG CCCTCAGGGA GTTGATAATC TAGTGGGGAA
43801 GGTGTTGGGG ATGATGGTTC ATCAATAGTA AAGAAACAAA TAATATAACT
43851 ACAATCATAC TTGCTGTGAT AGAGAATAAT GGGGAGGACC CTATGTATTA
43901 GTGGGGGGTA CTCTAGAGAA ACAGAACCAA TAGGATACAA ACACACACAC
43951 ACACACACAC ACAAATGTGT CTTGGGTATA TATATATCTA TATGAGAGAT
44001 ATATGTATAT ATGTACATAT GTATGTGTGT GGGGGGATG GGGGATATAT
44051 ATATATATAT ATATGGAGAG AGAGAGAGAG ATTTATTTAT TTTAAGAAAT
44101 TGACTCACAC AATTATGGAC AGGTCCCAAG ATCTGCAGGT GAGTCAGCAA
44151 GCTGGCGACC CAGGAGAGCT GATAGTTTAG TTCCAGTGCA AGTCTGAAGG
44201 CCTGAGAACC AGGAAAGCCA ATGGTATAAT TCCCTGAAA AGCCGATATT
44251 TCAGTTCAGG TCCAAAGGCA GGAAGAATTC TCTCTTACTC AGGGGAAGGT
44301 CAGCCATTTT GTTCTATTCA GGCCTCCAAC CGATAGGATG TGGACCACCT
44351 ATGTCGTGGG AGAAATCTGC TTTACTCACT CTGCTAACTT AAATATGAAT
44401 CCCATCAGAA AGCACCCTCA CAGAAGTACC CAGAATAATG TTTGACCAAA
44451 TATCTAAGCA TCCTCTGACA CAGTCAAGTT GTCACATAAA ATGAACTATC
44501 CTAGGCTACT TAGAGTAGTC AGAAGATACC TCTCTGACAT GGTAACATTT
44551 AAAGTGAGAC CCAAAGAAATG GGAAGGAGCC AGCCGTGGAA GAATGGGGGA
44601 CAGGCCCTTC AGGCAGAAAG AAAGTGAAGT GTAACCGAGT GGAACTGAA
44651 TGAAAGCTGG AGTCCAGAGG GAAAAGGGG ATGTTGTGAG ATGAAATTAG
44701 AGAGGGGACA GAGGCTTTAC TGTCAAGCCT TGGAAGCCAT GATAAGGGGC
44751 TTGCATTTTA TTCTAGATGC AACGATGAGA GGCAGTGAAT TTGAGCACCT
44801 TGGAAGCCAT GATAAGGGGC TTGCATTTTA TTCTAGATGC AGTGATGAGA
44851 GGCAGTGAAG AGTTTGAGCA AGGAGGAATG TGAGAGGATT TATGTTTCGA
44901 AAAGATTTTT CTGACTGCTC TGTGGGAGTG GGTGAGAGTG GAAAGTGGGG
44951 AGACCTGAGA GAAGGCTATG GCTGGAGCCT AGTAGGAGC AGGTAGCCTG

FIGURE 30



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45001 GATGGAGGGC CAGGGGGACA GAGGGAAGTG GATTGTTTGC AGGTCTATTT
45051 TGGCGGTAGA AATGAGAGAA CTATTGGGGA GGGACAGGAC AAGAGAACAG
45101 AAAGTAAGGC TGCCTCTCAG GATCCTGCCT ATTTGGCTTG AACGGTTTGG
45151 GTGAACATTA CTATCATTCG GGGAGGTGAG ACTTCCTTTT TTGGTTGGGT
45201 CAACTAACAA GCGCAATTTT CACTTACTAA GCATGAGACA CACCTGAGGT
45251 ATCCAAATGA AACTCAATAG TAGGCAATTG GGTGTGTGAA GCTGGAGTTC
45301 CAAGGACATT TTGGGTCTGG GTGTATAGAC CTGGGAGCCA TCAGCATGTA
45351 GGTAGGGATT ACACAGGGAG AGGATATAGA ACAAAGGGG TGCAGAAAAT
45401 AACCCACGGA AGTCCAGTGT TTAGGCAGAA GAAGAAGTAT CTGCAGAGTG
45451 GATTTAAAAA GACCCAACGA GAGAGGGTGG AGGAAAGCCT TGAGAGTGTG
45501 ATATCACAGA GGCTGTAAGC AGGGAGCTTT TTAAGAAGGA GCAAGTTCTC
45551 CTGTGCAGAA TATTGCTGAG AGGACAAGTG ATGTGTGGCC GTGTTGGTGT
45601 CCCCTGTGTC GGTAGCAGAG ATCGTTAGCA GAGCAGTTTC AGTGGAGTGA
45651 CAGGAGAGGA AGACCAAGTAT ATTTTATGCA GTTTTAGGAT GGGTATCACC
45701 CAGTGTATTA TGCCATTTC ACGCTGCTGA TAAAGACATA ACCAAGACCG
45751 GGAAGGAGAG GTTTAATTGG ACTTACAGTT CCGCATGGCT GGGGAGGCCC
45801 CAGAATCATG GTGGGAGGTG AAAGGCACTT CTTACATGGC AGCAGCAAGA
45851 GAAAATGAGG AAGAAGCAAA AGTGGAAACC CCTGATAAAC CCATCAGATC
45901 TCATGAGACT TATTCGTTAT CATGAGAATA TCATGGGAAA GACTGGCCCC
45951 CATGATTCAA TTACCTCCCC CTGGGTTTCT CCCACAACAC ATGGGAATTC
46001 TGGGAGATAC AGTTCAAGTT GAGACTTGGG TGGGAACACA GCCAAATCAT
46051 ATCACCCAGT TTAGTACTTC ACTATGTTTT TGGCCAATTA TGTTGGGTAG
46101 GGGATGGTTG TGCTCCTCCT GTCCCTTACC TTAGAGCTGG CAGATAAAAT
46151 ACCAGATATC CAGTTAAATT TGAATTTAG AAAACTTTTT AAAAAAGTAT
46201 AAGTATATCC CAAATATTGC ATGGGATATA CTTACCTTTT AAAAAATTTA
46251 TTGCTATTGT TTATCTGCAA TTCAAATTTT ACTGGGTGTC CTGTATTTTT
46301 GTTTCCTGAA TCTGGTAGCA CACATTGAAT TGCACCCTTT AAAATGGCTA
46351 GAATAGGGAA TTTTATGTTA TGTGCATTGT AACACACACA CACACACACA
46401 CACACACACA CACACACACA CGTATCTGGC AATTCTCCCT TAACTAAACT
46451 ACCATGTAGA AGCTACCATG CGATGCAGTC TATTTCTAGG TTTAGCCACA
46501 AGGGTCAATA AGAAAATCTG ACCTCAAAGG AAATTATGTC TGGTGATGGT
46551 TAATGCTTCT ACTAAATTC CTTAGAGCAT AGGATGCTGA GCCCATAGTA
46601 GGACCTCATC AAATGCTGGT TTGATAGAAA TTGCATTGGG GGAAAATTAG
46651 CAGCTGTTGA TAACTGAATG GAAAGAAATG AACTACCCTG GTACCTGTGG
46701 TACAACTTAA AGAACACCAT GAAATGGGCC TCATGGGAGG TTCTCAATGA
46751 ATTCAGTGGC GTGGCACTTT TGGGCATGCT TTTGGAACCA AGTACTTACT
46801 CCATGTGCCT GTGAGTTTGG CACCTCTCAT GGCAGCCCAA GTGCAACTGG
46851 TTTCTGAGGG GCCATTAAAA ATCTCCCAAT GGCAGACAAC TCTCAGACAT
46901 GCCTGCAAAAT TCCAAGACAG CCAGGCTGAT CATCTGCTAC TTAAATTGGT
46951 TATACCAGTT TTTATGCCTT TGTTTCTCCT CCTTTCTGTG AGGTGGAGGA
47001 AACATAACCA CAAGACTGTT TCCAGTGACC TCTTCAGAGG CAATTTCCAA
47051 GCAATTAACT ATGGGTTGAA TCCAAAGTGT ATTGATGAAT TAAATTCTGT
47101 TCCTTGGCTG AAGATTCTGT TCCTTGGCTG ACACCTGAAC TCAAAGGTTA
47151 GATTGAACTA TCTAGGAAAA CGGTTTTTCT CTTGTGTTTT CTGTCAGGCT
47201 TTGCTGTTTA CGAAGATCTT GCATCAACAC TTAGCATTCA CTCACATGGC
47251 AAGCTTGCAAT GTGGTACTTT CATTCCACAT TAATTTAGGG AACTCTACTA
47301 TGTGCCAGCA TTCAATATCC AATTTGTCTT AGATTTTCGA ATAGTGTCCC
47351 ACAATTTTAT AACTGGGGAG TTCCTTGAAT GGAAATATGT TCACAGTGGC
47401 TGCTTAATTG TGAATAACCC ATCACATAGA GACTGCTTTG GTAATAGATT
47451 TGATTCTGAG GGTCTAGGAG AAGGGACACT TCTCATATGG GGAAGACGGG
47501 ATTAATCCTT GAAAATGATA CTGAAGCCAA CTTCTGTACC AGTATAGCAG
47551 CTTAGCAGAC TTCTATATGA TCCATGTAAG GGTCTGTTTG CTCTCTGAGA
47601 TTTTGGGTGC CTTCTCTAGC CCCTGAGTGC TGGGCTTCTT CTGAATTCCA
47651 TAGGGGTGGA GGTGAAGGTA CCGCCAGCTC TCACCCAACT CATCCATCCC
47701 TGGACAGCAG GGATCTGCT CATCACCTTG GTGCCTCCGA TGCCTGAAGC
47751 ACAATAGGCC CTCAGCAAAC ATTTGTTGAA TTCATGCCAT GAACATTAAT
47801 CGAGCCCTTT TTATACACTG TGCCTGGGA TTGGGACCAT GGAAAATTTA
47851 GAGAGGAAAA GGTCCACCTT CAAGGGGCAT CTAGAGGAAC TTATCCTCTA
47901 GCAGGAGAAA TTGCTAATGA GAAAAGGTAT TTTGGGGAGT GGAGTGAGGT
47951 GTTGGTCTAG CTGGCAGGTT CAGCCTATGC TCAGTGGCTC TCTGGTATGG

FIGURE 3P



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

48001 AAAATTCCTC AGAATGTTGA TTCAGCCAAA GATTTCTCTG GCAGCACTGA
48051 CTCTTGCCCTT CCTTCGGCCA CATTTTATTC CCCAAACCTA GGTGTTACTG
48101 GGAAGAGACT GAGCTGTTTT ATTGAAGATA ATTGACTTTC CCAGTTTTTA
48151 AGTAAGTCTG TTGATTCCTC GAAGACTTCA CTAATCAGAG TTATGAATAT
48201 TTCAAAAACA CTTCCAGTC TTCAGATGAA TGGATTGTA GGTTTTCTAC
48251 ATTGCTGTCT CCCTAGCCCC ATGAGGAATA ATGTGGGTAT CCTTTTCCCT
48301 TTTAGGTTTC TCTCTTCCTC TAACCTGCGC CCACTCCCAG CCTCTGATAG
48351 ATGCATTTGC AGTAAATCAC AGAAATGTTG CTGATGTCAG CAGCACTGAT
48401 ATGCATTAGA GGAGCCACTT CAGAGGAAAT TACTCAGAGG GTGATGCTGA
48451 AATGCAAAGC TGTTTGGTAG GGTATTTTGT AGAAACTGTT TTCTCCCTTT
48501 GATGGATCTT GTTTATTTTT TTTTGACTTA GTAGGCACAG TGAAGGAATA
48551 ACCATCCAAA TGTTTTTTTT TTTTCCATTT AAGTTTTGTA TAGGAGGTTT
48601 TGGTGACTTT GAAATGAACC AGGAGCACTG AGCAGCTACA CTGACAAATG
48651 GAGATGGCTG AGGCTGCTTG CAAAGCAGTG TGTTGGGGTG TGGAGCCTCC
48701 ATGTCAAGTG CCTGGGGAAA GGCAACAGTG AGGGCACACC TCATTCTACA
48751 GAAATGGTTT AAAAATATAC ATATGATACC CCAC'TTTGA TGCACACAGA
48801 CTGTGCTGTT TAAATGCTTT CGATGGAAAA TCCTTTTGTA AAGTACACGT
48851 CTATCTTGCA GAGTAGGATT TCTGTATATG ATCTCAGGTT TGTTTATAGG
48901 GAGGTACACT TGGATGTCTT CATGACATTT ATCATGACAG CTGTAGCTGA
48951 GCAGAGAAAG AGGGCAGGAC TGCCATGGGG CATCAAGGGC CATTTGAAGA
49001 AGGAAATGGT GGACTGAGAG TGATAGCGAC CTGTGAGGCT GCCTGGTTTC
49051 TGTAGCAGTG TTCAGCAGCC TGTGACTCTG AGCAGAGAGA AGGAAATATTA
49101 TACAGGGATA TTTCCAGGTA GCTCCAGGAA AAGACAAAAG GGGAGGAAGT
49151 TGAGTCTGTT AGCTAAAGAG CAGTGTTGAA TATGGGATCC AAGTTGGGTG
49201 GAGAAGAGAA AGAGAAACACA GGGAGGGTAG GATGACAGGA GAAAGTAGAG
49251 GCAGGGTATG ATGTGGGAGC GATGAGGGTA GCAAGCTGGA AAGAGAGGAT
49301 GATCTAGTCA ATGTCTTAGT GTGCCTTAGG GCTACTATAA TGAAATACCA
49351 TAGACTGAGT AGCTTTTGCA CAACAGAAAT TTATTTCTCA TGGTTCTGGA
49401 GGCTGGGAAG ATCAAGATAT CAAGGCAGAT TCAGTGTCTG GCAAGGATCT
49451 GGTACCTGAT TGACAGACAG CTGTCTTCCT GCTGTGTCCT CACTCGGTGG
49501 AAGGACCAAG AGATCTCTCT GGGTTCTCTT TTATAAGGGC ATGAATCCAA
49551 TTCATGAGGG CTCAGCCCTC ACCATCTAAT CACCCCCCAA AGCCCCCACC
49601 TCCTAATCCC ATCACATTGA GGGTTAGATT TCAGTGTGTG AATTTTGGGG
49651 GACACAAAAA TTCAGACCGT AGCAGTAATC GCTTCAACTG AGTATTGAGA
49701 CAGTTCTTGT GGTAACAAGG TTTAGGGTGT GGCCATAGGG AGACTCAGCT
49751 GTAGTGGAGC TGTTGGGGCT GTGCCAAGGT CACCCAGATC CGTTTTGTTC
49801 TGTGCACCTG TCCTTTAGCT TCTGGGGGCT TCTCTCTTTC TGGCCTGTAC
49851 CTACAGCCTT TTTAGAGGA CTCTCCTTGG TCTACCGGAG CCTATTTTCA
49901 GGATGTTCCCT AGGAGTTTTC TGAGATGGAG TCTCCCTCTG TCGCCCAGGC
49951 TGGAGTGCAG CGGCACAATC TCAGCTCACT CCAACCTCCA CCTCCTAGGT
50001 TCAAGCCATT CTCCAGCCTC AGCCTCCCAA GTAGCTTAGA TTACAAGCAT
50051 GCACCACTAT GCCTGGCTAA TTTTTTTTTT TTTTTTTTTT TTTGTATTTT
50101 TAGCAGAGCT GGGACTTCGC CATGTTGGCC AGGCTGGTCT CAAACTCCTG
50151 ACCTCAGGTG ATCCCCTGCC TCGGCCTCAC AAAGTGCTGG GATGACAAGC
50201 ATGAGCCACT GCGCCTGGCC ATCCTAGGAG TTTGTATCAC CCACTCCTTC
50251 ACGGTTTGTC TGGAGGGATC TCCTAAATAA ATAACTCACA AACAAATTCT
50301 CATCCGGGAT CTGCTTCTGG GATACCTGCC CTGAGTTAGT GGTGAGATG
50351 GAATGGAGAT GATGGCAATG GTGATAAAT CAAGGAAATG GGAGGCTTGG
50401 GTCTTGGCTG GGTGTGTGTG GGGATGCTGA AGTCACTTAG GAGGGAAACA
50451 GGACCCAGAG AGAAGGCTGC AGGAAACTGG GGGAGCAGCC AGGTCTACCA
50501 CTGATGGCCA CGGGGAAAGA GTAGGAAGTG GAGGAGCCAG AGGGCTGGGG
50551 TCTCAGAGGA ACTGTCCGGT TTGACACAAG AATTTGGGGT ATTGGTTTTC
50601 CAGGACAATG TGACCCTGAT GTTGTGGGCG AGGGAGACTG AACAGCCCCT
50651 ACCCCAGAGT CACACTGACA GCACAGTGTG CTCAGGGAAA GCCCAGGTAT
50701 CAGGAGAAAA GGCGCAGGAA GGGGCCCTGA AGAGGCTGGG GGCATGAGGG
50751 AGTCTTCAGA TCTTCAGCAG GGGCCCCTGA GGCATCTTTG GAATGGTTTG
50801 GGGTAGGGGT GAGGGGAAGG TTGGATCAGA GGGGAGGAGG CTGAGAGCAG
50851 AAGAGAGAAC AAAGCTACAC CAAGTGGCCT CACTGGCCTC ACAC'TTCTCA
50901 GAATTGGTCC CTTCAGACCC GGTGGTGGGT GGCTTGGCAG CCTGGATGTG
50951 GGGTGTGGAG ATTGGTACTA CTCCTGGCAC ACAGGGGGCA TGCATTGGTT

FIGURE 3Q



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

51001 GAATAAACAA ATGAATGACA CATCAAGTTT GTAGATGCCC CACCTTTTCA
51051 TCATTCTGAA CCATTGTCAC TTCCATGTAT TTTATGGTCT GATAAATATG
51101 GAATTAATCG AAGTACCTCT AGCTATTGTG TATCACCATT ATTGGGTGGG
51151 ACACAGCGAA CAGATTCTTT AAAGCTAGGG AATTATGCAA TAGGACATGT
51201 TACGGACTTA AGCCATAAGA TCCTTTTTTT TTTTTTTTTT TTTTTTTTTT
51251 TTTAGATAGA GTCTCACTCT GTCACCCAGG CTAAAGTGCA GTGGTGCAAT
51301 GTCGACTCAC TGCAACCTCC TCCTCCCAAT TCTCCTGCCT CAGCCTCCTG
51351 AGTAGCTGGA ATTACACGGT GCGCCACCAT GCCTGGCTAA TTTTGTATT
51401 TTTAGTAGAG ACAGGGTTTT GGCATGTTGG CCAGGCTGGT TTGGAAAGGA
51451 TCTTTCTAAT AGGCCAAAA ATATTTTCA GTTTTGCTTT CTACTGTGGA
51501 TCTGTAGATC CACAGTATAA CTACTTATGG TCTATTGCT TGTGATTGCA
51551 GATACTGAAG GAGTTTGCTG GGAAGGAGA AGTGTGTGTG GAAGAAGAGG
51601 GGAGGGCTGG AGAAGTGAGA TGAGCCCTGA GCACACGGGA CATTGGAGGC
51651 CAGGGAAGA ACCATGGCGG TGCTTGTGGA GTTTTAATAG GTGCAAGCTG
51701 GGAATTCAG AAGGCTCACC TGGCTGCTGA GTGGAGCCTA GGGCAGGGTG
51751 GGGGGTGGGG GGAGACCCCT CCGGGAGCCA GTGAGGAGAG ATAAGTCTT
51801 TTGACAAGAC ACCTGGGAAA GACATCTGGA AGGAATGGCG TTGACAATAA
51851 GATTTAAAC CTTTGGCCCC AGGGAAAGGG GATATTTTGA GAACATATGAC
51901 TGCTTGTATT ACTTTTAATC CCAAGAGGAG GATAAAGGTC TTTCTGTAT
51951 AAAGTGCCT AGTTAATTTA AATTGTGGAG GAAAAACTT AGGGCAAGAG
52001 ACAGAAATAG ATATTGAGA AGCATTTTGG AAAAAAGAC AAGGAACCCC
52051 AGCTGTGCT GTGTGCACCT TTAGGGCCTT GATCATGGAG GCAGGATAAA
52101 GAAGTCCATC TCGTCAACAT GGCGGAGTCA GAGTCTATTG GGAGAATCAC
52151 GAGGTAGGCA GCTCTAAATC CAAAAGATG GTGGTCCAGT CGGATATGCC
52201 TGGGCTGCTC TGACCACTC AGCACACACA AGGAATAGCT CTGGTCTGCG
52251 GCAATTTGTG CCCTGGGTCG GAGGGTGAGA GTTTATTTTA TCGGAACAAT
52301 AAAGGCATCC CACCTGCTAC CAGGAGCAAC CAAAAATGCT CAGAAGTTCT
52351 GGAACAGGAG TGCTGTTGAA CAGGGTTTCC TGGCAGCCCG AGATAGAAAG
52401 TGGTAAAAAC AGCAAAATGC TGCTATGGTA TAGTACTGAA GTCATCAGGC
52451 ACACACTGAG ACTTCCTGTG GGTCAGGCCT TGTGAATGGT GCTGGAGACA
52501 GAGACTGGGA TAAGATCTAC CATCTCTGAT GCTGACGCCC AGCCCAGTTC
52551 TCCCCTTTTC CTCTCTAGTT TTTTCTTTCT CTGTCTATGCA TCCCCCTCCC
52601 TTTGCTGTCC CTTAAATGTT GCTCCCTTGA GCATCATCTT TACTCTCTT
52651 CTCATTTTAC ATCTCCCTCT GGACCACTTC ATCCAGTCTT GTGGCTTCAG
52701 TACCACCTAC ATACTCATCA CTCTTAAATC TAGGGATTCA GCTAGATTAT
52751 TCCCCTGAGT TCTGGTCCCT TATGCCTCAT GTTAACTGGA TAGCTCCACC
52801 TGGATGGGCT ACAGGAGCTG CACACCTAAC TCTCCTGCAT TTTCTGTCTT
52851 GCAGAGCATG ATACTGTTAT AAGCTTATAA GAGTCATCCC AGACGCCTCC
52901 TTTCTTCTT TGCACTCCATC ACTAGGACCC GCACATTTTA CTTCCTTAAC
52951 ACGCCTTGTC TCTGACTCCT CCTCTGCTGC TGCCTGAGTT GAGGCCTCAT
53001 AATACATTCC AGTAACTCC TACCCACACC CCCCACAGAC GATCTCTCAC
53051 TTGCTGCATG TCTCTTACGC ACTGCTGCCA GAGTCAGCTT GCTAAACCCA
53101 GGTCTGACCC CCTGGCTCTT CTCCCTGTGT TAGCCTTGAT GGCTTCCAC
53151 GCTCATTAAT AAGACCAACA AGAGCCACAC TCTCTCCTCT GCTTGTCTTT
53201 GCAGCTTTAT TTTGGTGTAG CCATCTTCAC ACCCTCTAGT CCTGACACGC
53251 AGACCTGAGG TAATTTCCCA AATGCCCCAG GCTGATTAT GGCTGAGTGT
53301 CTTTGTATCT GTTGCCCCC CATTGTGTGT CCGCCTTCCT CTCCACCTCC
53351 TTCTGCCCC TCGCAGACAC CTAATGCCCT TTCCACACCA GTGGGCACCT
53401 TGTCTTTGCA TTCTCGTCTC CTCTTCGGTG GCACTGACAC TCTCTCTTCA
53451 TGTCTTTCTG TCCCCACAC CTCTGTCAA CACAGCATCT GCACGCTTTG
53501 TTGCATTGTC TTGCATAGAA CACGTAGTTT TCTTCACCTC CTAATAATGT
53551 GGACAGCTCA CGTTGATTGA GGACTTGCTT TGAACAAGGC ATTGAGCAAC
53601 ATGCCGTACA TTTTATGTTA AATCTTCCCA ATAGTGCTAC TGCTTCTGTC
53651 CCTTTCCAGG GAGGAGGAAG GAGGCTTGA GAAGGACTG TCTTTAGGA
53701 GCCCTGCCCA GTGTTTCTG TGGAGGGTGG GGCCATCGTG GAAGACAGAC
53751 CTATGGTAGG GGTAAGCTGG GTGGCTGTTG AAGTCCAACC TTCCCCCTTC
53801 TTCTCTAAC CCTGATAACC TTGTTCTCTG GGGCCTGTCT GCTAGTGGAG
53851 AGGCTTCTGA CTTTTTTTTT TTTTTTGCCA TACCTTGGT TTATAAATAC
53901 AAGAAGAGAT TTGGGGGAAA ATCAGGGGAA ACTGTGAGC TTACAAGTCC
53951 CGAGAAGGAA GTCAGTCTC CTTAAGTCT CATGTGAACC CTTGTCTCTC

FIGURE 3R

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MAY 02 2003
PATENT & TRADEMARK

Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

54001 TCCCCAGCTT GTGGGGTGAA AGAAAAGCCC TTTAGTCTTT TGGGTCCTCA
54051 AATCAGCTT TATGCAGTTT GGCCCCAGTC AGAGGGACCC CAGGAAGGCA
54101 GACTCAGGGT AAATTTCTGCC TGTCTTCCAC CAGAGAGGGG ACTCACCAAG
54151 TGTGACTCAT GCCATTCAAT AGAATTTTAA AAATCTCACA AGTATTTTGT
54201 ACCCCTGAGT AAAAGAGAGG CTTGTAGCTC TTCATGAAGG AACAGAAAG
54251 GCCCGAACTG AGTGTTTGGA GCCCAGTGAA GTAAATACT GCCCTGTCTC
54301 TTGTCTGTCC ACTCTAGCGC TTGTACAAAC CATGAAGAAC TCTCTTTGGA
54351 CTGTTTGCTT TTTGAGAATG TTAACACCTT GACTCTGGAT TTCTGCCTAT
54401 GGGAAAAAAC CACAATAGTG CCAGGGGTGC TTCCATATGC AGGATTAACT
54451 CTGCAGTCAA AGTTTCTGTT GGGCAGGTGT GTGAACTTGA TATCATAAAT
54501 GCTGGCCCAA AGCAAAATGGG AGAATGGATG AATGAACAAA TTCAGGAATG
54551 AAACAACTG TAACCAAGGG TCTCCTAGTT GTAGGTTCTC TGCTAAACTT
54601 CATATTGAGA CACAAAGGAA GGGCATCTTA TAATATAATG TTGGGGGATG
54651 AGCAGCTCAG TTGGAGGTGG GGACACGTAA GGTGGGTTTT GATGTTTGAG
54701 AAGGAATGGA CCAAAAAAG AGTCAAGAGG TGAGAAGAAT CTGGGAAGTG
54751 AGACCTGTTT CTCTGGGACA GGTGTGAGCG GGTCTGGGTG CTGCTGGGT
54801 TGGCTGGGGC AAAGGTTGCT TGTGGGGCG TGGCAGTGGG TGAGGCCTGT
54851 GAGATAGGCA GCGCCAGGT CCTGGAAGGG AGAGTCAGGG AGCAAGGCAT
54901 GGAGCCTGCA CTTTACTCTG AATGTTGGTG GCGCCTTCAG AGCATTGTTA
54951 GCAGGGGTCC ATGTGATCAC ACTGACACCT GAGAGAGTGA CACACCATGT
55001 ACATGGCTGG TATATGGAGG ATGGATTAA GGGGGACAGG ACTGAAGGCT
55051 GTCGCAGTGA TTCAGGTGAG AGAAGATGGG GTTCTGGACT AAGGGGACAG
55101 GAAAGCACAG ATGTGAGATG AGGTGGCAGG CAGTTCTAGC TCCCTCTTCC
55151 CCCAGTCTG CTTGTTTTTC CTCTTCTCAT GGCTCCATAG GGTCTCAGTC
55201 ATTTTCATCAT AGCTTGATCT CTTCCATCTG GAAGTGCAGC CTGAAATTTT
55251 GAAGACAGCA GGGAGCAATG CTTACCCAA AGGGAGAGCC TCGGGTGGCG
55301 TTTTGGGACC ATGGCTTGCT CTCTTAGTGC ATACAGACTT AGTGTTACTG
55351 CCATTCTTAC TGGGATCAGC TTGATTGCCT TTAAGGTAGG GCTGTCCATG
55401 GAAACAGGGA AAACATGATT TGGTTGTTTG GGTATCTGGA ACCAGAGGCA
55451 GCACAGATAC TGCTCTAAGA GCTGCTGGGA CAACTGGAGG CCGGTGTGGG
55501 TGGAGACCCC GAGGTGGAAT CCTGCGCTCC TCATCTTCC TGCCCTCTTC
55551 CTAACACCTT CCCTCCCCAG CGGCCGTAAG TCTGCCTATG CCTATGCAGG
55601 CTGAGCTGTA ACCTGGGACT CTTTGGGAAG TCTGAGCCAT CAGTGCAGGT
55651 GGCCCCGGA TGATTCCAGA CCTAGAGTAG GGGTGGGAGG TCGGCTGCGG
55701 GGCGGGGGGA GGTGAGAGGA GGCTGTCCTT TCCCTCTTGC CCGGGAGTCT
55751 GCAGTCACAG TTGCACCTTG CCTGGGTCAG TAGCAGAGTC ACGCTGCTGT
55801 GTGACAGTGG CACTGAGGCA GCTGCATTTT AGGTTTCCAA GAGACTCTGA
55851 ACCCTTGGA TGCCATTGTG TTCAGGTGAC ATGGAGGAAT GGAGGCACTC
55901 GGGTTAAGTG TCTGAAGATG GATTCAAGGA TGCCCCTGCT TGTTAGCTTG
55951 TCATAGGTTG CTCAGTGTC CCTCTCTGGC CCGTAGTTTC CTCATCTATC
56001 AATGGGGGCA GATAATAATC ATCACCTTAC ACAGAAGGTT TGGCGAAGAT
56051 AAAACAGGT TCACTGGCTG GGTGCAGTGG CTCATACTTG TAATCCAGC
56101 ACTTTAGGAG GTCGATGCTG GCAGGTCGCT TGAGGACAGG AGTTTGAGAC
56151 CAGCCTGGAC AATGTAGTGA GACCCATCG CTACAAAATA TTAAAAAATT
56201 AGTTGGGCAT GGTGGCATAT ATCTGTGGTC CTAGCTACTG GGGAGGCTGG
56251 GGTGGGAGGA TAGCTCAAGC CAGGAATTCG AGGTTACAGT GAGCTATAAT
56301 TGTGCCACTG CACTTCAGCC TGAGTGACAG AGCAAGATCC TGTCTCAACC
56351 AAAACAAAGC AAAACAAAAA CAGCTTCATG CACGTGTAAG ATCTTTGTTA
56401 ATTCTTCCAT TAACCTGAA GCGGGGATGC GTCTTATTAA TTTATGTAGC
56451 TCCAGTGCCA AATGCAGTGC CAGGCAAACT CAGTTGTTTG TTGATTGAAC
56501 GAATGAATGG ATGGTGCAAT AATATCTGTG GGGCTTGAGA AAGCCTGAAT
56551 AATGTCAACT TATTAAGAGC TTGTTCAACC ATGAAAAAGC AGATTTCCAC
56601 ATGTACCCCT CCATATCACC CACATTTAGG TGAAAAAGAA ATATGTGCCG
56651 TATTTCTTTT TTTGAGACAG AATTTATCTC TTGTCACCCA GGCTGGAGTG
56701 CAATGGCAGC ATCTCGGCTT CACTGCAACC TCCACCTACC TGGTTCAAGT
56751 GATTCTTCTG CCTCAGCCTC CCGAGTAGCT GGGACTACAG GTGCATGCCA
56801 CCATGCCCCG CTAATTTTGT TATTTTGTAGT AGAGCTGGGG CTTACCATG
56851 TTGGCCAGGT TGGTCTCGAA CTCCCAGCCT CCCAAGTGCT GGGATTACAG
56901 GTGTGAGCCA CTGCGCCAG CCATGCAGAT ATTCTTGAGG AAACATTTTA
56951 AAATGAAAAC TAGCAGAAAG GATATTACCT TTCAACATTT CCTTTCTCAT

FIGURE 3S



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57001 CAATTCTTGG CAGCACTTTT GCTGCCAGT ACTCTTCTGT TGGAGCTGTG
57051 AAGTGTGATA GGCCATTACT TTATAGATCC ATTCATTATT GATACGTTTT
57101 GTAGGGAAGA ACTCCACTGC TGTTTGGAAA CTGAAGTAGT CAATCTCATA
57151 GACTGGAAAA TATTTTAAAT GCCTATTTGA AACAAATGTC GTTCCTATTT
57201 TTTGGGATAA AAGGGCCCTT TCCCCCTGGA ATTGCTATGT TTCCTCTTTT
57251 CCTGTTTCTA CACTCTGCAG AACTGACTTT GAAGTCAGAT GATTCCCTTT
57301 TTAATCTGGC TTCTCGCTTT TGGGCCGCTT AACCTTGACT TAGCCATTGA
57351 ACCTGTCTGG GTCTCAGTTT CTTTGTCTGT GAAGTGGGGC TGTGTTGGGC
57401 ATGAGCATGC GCCTACAGGC CTCTAACTGG AGGGGGTGT GGTGATCAGG
57451 GCCCTGGCTG CTGCCCTGAT CTCCACAGCT GGGCTTGCAC TGCGGGTACG
57501 TTGCTCCCGG GCTGCTCCCA GCCAGTGTCT GTGCGCAGCA AGGATACCAC
57551 GGCAGGATTG TTTCTGGGAG ACACAGGACT CCTCAGACAG CTAACCTCAG
57601 CTCAAGAACT CTTTGATGGG CTTGCTAAAC TTCCTTAGGC TGGAAGATGC
57651 TTACCTCCTC CTTCTTCTTT TCCTTCCTTT TCCAGGGGTC AGACTTACTT
57701 AGAGTCTAGT GCCTGTTCTA GCCTCCCAA CTCCCTATCA TTTTCTCTCA
57751 CACATGCGTT CCCCCTAATA AAATCCATGC ACATTTAATC CTTCTTGGC
57801 ATCTGCTTCT GGGGGTCTTA CCTGGACTCA TGCAGTGTGA TAATTCCTTG
57851 TAGTGAGGAC CGAATGTAGT GATGTAAGCA GAGTGTGTTG CAGAGTGACA
57901 GCATGAGTAA GTGCCCAGTA GGCCATCAGG GCTCCTGTCA CCTTCACCAC
57951 CATCAGCACC ACCATCCTCA TCACCATCTG GCCAAGTTTG CTTCTTTGTT
58001 GGTTCAGGC ACGAGAACTC CAGTGGTTGA TTCCAGGTCA TGAGGCAACT
58051 GTATTAGGGT GAGAACAAC GTGGCTTCTA AGGAGAATAA ATGGATTAAAT
58101 GAAAATGCCA TTTAAAAATT TATCCAACCT GGCTGGATGC GGTGGCTTAC
58151 GTCTGTAATC CCAGCACTTT GGGAGGCTGA GCGGGCAGA TCACCTGAGG
58201 TCAGGAGCTC AAGATCAGCC TGGCCAGCAT GGTGAAACCC CGTCTCTACT
58251 AAAAATACAA AAAATCAGCC GGGCATGGTG GTGCACGCCT GTAGTCCCAG
58301 CTACTTGGGA GGCTGAGGCA GGAGAGTAGC TTGAACCCGG GAGGTGGAGG
58351 TTGCAGTGAG CCGAGATTGT GCCACTGCAC TCCAGCCTGC GCGAGAGAGC
58401 AAGACTCCGT CTCAAAAAA AAAAAAGAAA AAGAAAAAGA AAAGAATTTA
58451 TCCAACCTAA GCACAATCCA GATCCTTTTC TAGCCATTGA GATGTGCAGT
58501 CTTCTTTGCC AAAACAACCA AGTCCCTTTT TAGTGAAATG CACAAAAGGT
58551 TTTGTAACAT TCTGAGATCT GTGCCGGTAC TCCTGACAAC TACAAATATA
58601 CTCCAGCCAG TAGACCAGGG CTGCTCATTT GCTGTTCTCTG AGAACCTGT
58651 GGACGTTTAG AAAAAAGAT GGCTGCTATT ATTACATTT CACAGTAAGC
58701 AAACAGAGAA ACTAAGTGAC AGTTTCGAGG TCATGCTGTC ACTGATGGAT
58751 TTGGGACTGA AACTCTGGTT TTTGCTCTGG TGCTTTGGAA GCTCAGGCAT
58801 GGGTGGATTG TGTTCAAACCT CTGCCCTAAT GGACAGTCTC TTCGCAAACCT
58851 GGCACCAGGA CCTGGCCTGA AGAGACGTTT CTCAAGCCCA ATTCTGCCCA
58901 GCCTCAGGGA TGCTAGAAGC TTGGGAAGCA TCCATGATGC AGGTCACTGA
58951 CGGAGTCCAG CCTCCACTCA CCTCCATGCT CATGCTATTT ATTGCTATGC
59001 AGCTGATGAG CTTTAAAGCT AATGTTGGTT ACCTGGTGCT GTGGAACATG
59051 TTCCTTAAGC TGACTGGCAA GCCCCTGAGG CTGGGAGGGA CTGTGCCTTA
59101 TCCCCACCAT ACCACACCCC TTTGTGCCA TTCAGCATT AATAAATGTT
59151 TGTTTTTGTG AGTGCTGGTG ATTCCGATGG GGCTTTTGTG TGAAGGAATT
59201 ATCACCACCA CCACCACCAC CACTGGAAAA CAACATTGTC TCTATGCCAG
59251 GCACTATGCC AAGAAATTGA GATCCAATGA TTAAAAGATG AACTTTCTGA
59301 CTCCAAGAAG TTGATAGGCT AGTGGGGAAG ATCAGCACGC TGGCCTGCC
59351 TGGAAGAGCC CAGGACGACT TCATAGAGGA GGTAGCTTTT GGCTGAGACT
59401 AAAGAGGATG GGAGTTTTC AGGCAGATGA GGGTGGGGAA GGGGTTACTG
59451 GCTGAGAGGA CAACACCTGC AAAGGTGTGA AGGTGTGAAC AGAGCACTGC
59501 TGTGTTTGTG GACCTGCTTT CAGTATTGCT GGAGTGCCAA ACTGTTTGCC
59551 ATTTGACGCT GCTCATCCAC GTTGTCTGTG TGGTTTGGAT GTGCCAGCAT
59601 TCCTTCCACC CTTTATTCAC TTATTCCACC ATCATTGATT GTCTACCCAC
59651 CATGTGCCAG GTACTGTGCA GAACACTAGG GGTGCAGAGG TGAGGGGTAG
59701 ACAGGTGCC TGCCCTCATG GAGCTTTCAA TCTAATGGGA GTGCTGGACA
59751 AGGGCACAGG CTGTATCAGC AGCACAGCAC AGTGAGTGCT GGGCAAGGGA
59801 GATGTATTAG TCTGTTTTCC TGCTGCTAAT AAAGACATAC CCAAGACTGG
59851 GTAAGTTATA AAGGAAAGAA GTTTAATGGA CTCACAGTTC CATATGCTA
59901 GGGAGGCTC ACAATCATGG TGGAGGGTAA ATGAGGAGCA AAGTCACATC
59951 TTACATGGCA GCAGGCAAGA GAGCATGTGC AAGGGAACCC ACCTTTATAA

FIGURE 3T



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

60001 AACCATCAGA TCTTGTGAGA CTTATTCACT ATCACGAGAA CAGCACGGGG
60051 AAAAACCTGC CCCCATGCTT CAATTACCTC CCACGGGGTC ACTCCCCCAA
60101 GATGTAAGGA TTATGGGAAT ACAATTTAAG GTGAGATTG GGTGGGGACA
60151 CAGCCAAACC ATATCAGGAA ATCTGAACTA ATGGAGGGCA GATTCAATTC
60201 CTGGGGCTTC CGTAGCAAAT TGCCACACAT GTAGTGGCTT AAAGCAGCAC
60251 TAATTTATTA TTGTATGGTT CTGGAAGTCA GAAGTTCAAA ATCAGCCTCA
60301 CTTGGCCAAA ATCAAAGAGT AAGCAGTACA GGTTCCTTCG GGAGGCTCTA
60351 GGGGAGGATC CTTCCCTTGC CTTTTCCAGC TTCTAGAGGG ACCACATTCC
60401 TGGGCTCATG GCTGCATCAC TCCAACCTGT GTATCTGTCC TCACATCCCT
60451 TCTCTCTCTG GCCCTCCTGC TTCCTTCTTA TAAGAACTCT TGTCAATATA
60501 TTGAGCCCAA CCATATAATC CAAGATCATC CCCCATCTCA ACATTCTTAA
60551 TCACATCTGC AAAGTCCCTT TTGCCATGTA AGATAACATT CATATATGTC
60601 TTGGGGATTA GGATGTGGAC CTCTTTGTGG GCCATTATTC TACCTGCCCC
60651 CAAGGCAGGA GGGGAGAAGG TGCTCCAGA AGTGATATTT AATATGAGAT
60701 TTCTGGGTCA GAAGCAGGAT ACACATGGAA GCAGGGAGGC CCCTTGGGAG
60751 GCTGCTGGGC TGGTCCAGGC AAGATGTGAC AGTGGCCTGG ATGAGGCTGC
60801 TGGCCACAGG GGTAGGAAA GGCCCAAGGG ATGAAATACA GTGATGAGGC
60851 AGAATGAATG GGAGATGTGG GCAGTGGTAA AAGAAAGCCA CCTTAGGCAA
60901 GGCTCACCTT CTCGGCATCA ACAGGAGCAA GGGGAAAAGT GAATGCAGCG
60951 TCTTTAGGGA AAGTTAGCA AGAACATAAT GCCCAGGTTG CTGATTCTAA
61001 CATATAGATC TTTCAATCAA GATTCCAGAC AATTTTGCCT TTGTGTAAT
61051 CTGAGGGAAA TTTAACATGG AGTGATTTTA TTGGATTGGA TAATATGCCA
61101 TAAAAGACTG ACGTTCAGCT CGGTTTCCAA AGACAGAAAC TGATTCCGAG
61151 GGCCTAGGAG GAGAGGCAGA TGTTTACAAA CTTAGATTCT TCTAAGCCAT
61201 CACCTCTACA GCCAGGTGTT TTGAACAGGC AGTGACATAG CCTGCTCTTT
61251 GACTTTTCCA ACAGTGATTG AGCAGTTTAA CTCCCTGCTG GAGTGGGACT
61301 GTTTACCCCA CTTAGGGTAA TTAGGTTTAT CATCTACTAA TACCTTCTTC
61351 ACACAACAGC CAGCCTGCAC CATGACAGAG ACTATAATAA GAGTTGGAAT
61401 AATAAAGGGA GAACAAAACCT GAAGTGCAGT GGCTGTTCTG TGTGACAAA
61451 GACATTTCTG TGATGCATGA TAGCATTGCG TGTGCGTCAT AACCCCAAAC
61501 TTCCTGCCAT CGCAGAAAAG CCTCCAGCTG AACCTATTTA TTTCCAAAGT
61551 AATGAAATG CCCTACAGAG AACAGGGACC TTAGAGAAAT CTATGTGCTT
61601 CGAAAACAG GAAACAGTTT TTTTCCAATG ACGTCTTATT GGAAAACAAT
61651 AGAAGAAAAA TTCTATTACT AGTAGATCAG GAGTGGTTAT GCCTAAGTCA
61701 CATCTTCTAT TAAGATATAA CAAGCTCATC CTTTTTCTCT TTGTTTGTG
61751 ACAAGAGGAC TTTTAAAGTC TCTAGACATT CATCTCTTCT CTGCTGTTGG
61801 TATCACCAGC CTTGGTGCT TGGATAGAGT AGTTGGTTAT CCCTCTCCTA
61851 TTTACTTCTT CTCCAAGTTC AACAACATGT TTGTTTAA ATCTGATGAT
61901 TTGTTGTATT CTTACACAT TGTTTCAACA AGGAAGCTAA GGGAGGAGGT
61951 GAATTATAAA TGGCAGAGAG ATAGCTTTCA ATTTGGACCC TCGTAGAAAA
62001 ATGTAAGTAT TTCAAACCTCA GTTTATACTT TTTTTTTTTT TAACTGGGA
62051 CCCCTGTGTC TTATTTTFTA GAACTCAAAT GGGTACCTAG CAACTGATCA
62101 AATTCCCTAA CTGCAGGCTT GGTGAACCAG CGTTTCATCC TCACATTTGA
62151 AAGCTGGCTC AAAGAAGACA TCTGTGCTTT GTTTCTGACA CGTTTGTAT
62201 TTATTTATAA ACAAACTCTC TTCTTCTTTG TCCCCACCC TGACTCCTCA
62251 GTGGCCGTTT CCGCAGCAGC ACCGGTGTGC CAGCCCAAGA GCGCCACTAA
62301 CGGGCAACCC CCGGCTCCGG CTCCGACTCC AACTCCGCGC CTGTCCATTT
62351 CCTCCGAGC CACAGTGGTA GCCAGGATGG AAGGCACCTC CCAAGGGGGC
62401 TTGCAGACCG TCATGAAGTG GAAGACGGTG GTTGCCATCT TTGTGGTTGT
62451 GGTGGTCTAC CTTGTCACTG GCGGTCTTGT CTTCCGGGCA TTGGAGCAGC
62501 CCTTTGAGAG CAGCCAGAAG AATACCATCG CCTTGAGAGG GCGGAATTC
62551 CTGCGGGATC ATGTCTGTGT GAGCCCCCAG GAGCTGGAGA CGTTGATCCA
62601 GGTGAGCAGG GAGTGAGTCC ATCTTAGGCC AGCTGGTGGG GTGGATGGCA
62651 GTGTTGGTTT TATCTTCTG GGTCTCTAG CTTGCCTTCA GTTGAGAGGC
62701 TCTTGGTGGT CAGGGAAGTT CTCTCCAGGG AGGTGACATG TGAGCTGAGA
62751 CCTCCAAGAA GCGATAGTGA GGCATGTGAC AGTGTGGGGG AAGGAGGGTC
62801 CATGTTCTGC ATCTGGTTTT GGATGAGTGG TCAGAGGCGG CAGCAGGCCA
62851 ATGGACTTTG GATTTTCAAG TTCAAGTCCA CCTATGTGTG CTGATTAACT
62901 CCTTGATTCT GAACTCTGTG GAATGCTGGG ATAGAACCCG AAGAAGGAAA
62951 GAATTTTAAA TATGCAGATT TAGAATAAGC AGGGATATAT TAACCTGTCC

FIGURE 3U



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

63001 AAGGTCCATG AGGATGAGGT AGAGAAGAGG CCACCAGGTA TGTGGGTGAA
63051 GAGGCTGTCA GTGGCCTGAG ACAGCTGTTA TAGTGGATTT ATGGGGATGA
63101 AATAATATGG ATCACAGTAG TAGTAATCAT CAGGTTTGCT GTTTTTGAAT
63151 ACTTACTGTG TATCAGGCAC TGTACTAAGG CCTTTACATA CCCTGGATAT
63201 TAAGGAAAAA AGATTCTTAG GAAAATGGAA GCAGAGAACT TGAAC TGCAG
63251 CCTAAAGAAG CAAGGCAACA CTTCTGGGCG ACAGATGTGG ACTTGGCAGG
63301 GGTGGACTGT GGCGGTAAGG AGCTATAGGA AAGCCAGAGA GTCATCTGTG
63351 GGGATGCCGT GCGAGGGACT GGATCAGGAG GGTTGTGAAG TCTGGGAAGC
63401 CAGAGAGAAA AGCAGTTCCC ACGAGGAAGA AAGGGAAATG GTGGAGAGCC
63451 CTGTTGGAGG GCTTCACCTT GGACGTGAAG GAGGAAGGCT GCCTCTGAGG
63501 CTGAAGTTCC ACTTTCTATC CCAGACACCC TCCTGAACTA CAAAGAGTGG
63551 GTTTTGGTGG AAGGCGGTGA CATTATGGA GGTGAGGGAG AGTCTCATCT
63601 TTCTGGGGGC TCTAAAGTTT GGAAGGTGGA GGGATGGAAA AGACAGCTTT
63651 TACAATTCC TCTGGCTCTG GAAGATGCAC ATTAAATCT AATGGCTGCA
63701 ACAATCCAAG ATAGTGTAGG ATTTACCAGT CTGCGCTGTT TTCTTATTTA
63751 TTTATTTCTT ACCATACCAA TAGAGTAGGG GAATTCTGAT GCTGCTTATG
63801 ATCTGGCACC TTCATAGCAA TCATATTCTT GTCAGTTAGT TTTAATAATG
63851 ACTTGACTCT TAAATAAATA GAAATACAAA TTCTTCCCTT CCTGGGAGTA
63901 AATATGATTT CATAGCTATG CCCTATAATT CTTCTCAAAA AAATAAAATG
63951 TTAAAAATCC AAGGGCAGCA TTTCATATAA GTGTTTCATA GGAAGTCAGT
64001 TCTCCAAATG GCTTTGTCTT TTTTTTTTTT CTTTTTCTTT TTTGAGACAG
64051 GGTCTCATTC TGTCACCTAG GCTGGAGTGC AGTGGGTGTA TCATGGCTCA
64101 TTGCAGGTTC AACTTCCTGA TCGAGGTATC AGCTGATCCT TCTGCCTCAG
64151 TCTCCTGAGT AGCTGGGACT ACAGGCATGT GCCACCATGC CTGGCTACTT
64201 TTTGCATTTT TTTGTAGAGA CAGGTTTTCA CCATGTTGCC CAGGCTGGTC
64251 TTGAATTCCT AGGCTCAAGC AATCAACCCG CCTTGGCCCTC CTAAAGTGCT
64301 GGGATTACAG GTGTGAGTCA CCACGCCCAT CCCTTTTCTT CTTTCATGGG
64351 AAAATGCTAC CACATTGTG GTGATGAGAT TTTTGTACTA ATCAGTGCCA
64401 GATTTAAAGC CTAGCATGCT ATAGAGAATG GAATAAACAA TTCTGGAGTA
64451 GTTTTAAGTA GGAGTATAAT TACATTTATA CACATTGTTG TGATATGAGG
64501 TAGGATCCTT TTTAATTAGT TGTAAGACAC GTCATAATAA CCTGATAGGC
64551 GTTCTGAAGT GAATCTAGTA TTGTGTTTGA ATTTTCCTTC ATTAGGCAGT
64601 AAGATCTTGA AGAAAAGGAA TGCACGTGTG TACCTTTTCC TCCACATGTG
64651 ACCTATGCTT TGCTTTGCCT CTAATTATG CCCATTAGAT AAATGTTTTT
64701 AGAGCAAGAT ATCAAAGCAA ATTGTAGAAC ACTGGTGATG TCACAAGCTA
64751 TCTGAGCTTA TCCATGCATT TGTTGATTAA TTCGGCATT CCGTATTGCC
64801 CATTCTTTAA CCCTCATCTT TATGAGAGAG CTCAGAGACC TGAATGAAGG
64851 ACAGGGTCAG AGAGCGTGA GGTCCCTTAT CTGATGCTGC CATTAGACT
64901 GGTGTCTCTG TTTGACCTCA AAGATTTCTC TGTGAAATGA GATATGTGTG
64951 TGTATGTGTG CGTTTGTGTG AATGTGTTT CACATACACA CGTGTGTGCA
65001 TTTAAGATAA TTTTAAACA ATTTAAAAAG CTGCTCTTTA TTAGGCATCT
65051 GTTATGAGCT GGGCATCATA TACCCATTAT CTCATTTAAT CTTATCAACA
65101 ACACCTCTAAG TTCATATCAC GATTCCCATT TTACAGGGGA GGAAACATCA
65151 GTTTCCTTAA AGAGGTGAGT AACTTTCCAA CCACCAAAGT GGTAGAGCTG
65201 GTAGTCAGCG CAAGGTGGA CTGACTGTAC ACTCTCTCAT CCAAATAGTC
65251 TACAGGCCCT TTAAGTAGAT CTTGGTTTAT AATAAGCTCC AGTCTCTTTT
65301 AAACCTGTGC TTTATGTTGA ATGCTGTATT AGTCCATTCT CACTATAAAG
65351 AACTATCTGA GACTAAGCAA TTTATAAAGA AAAGAGGTTT AATTGATTCA
65401 CAGTTCCGCA GGCTGTGCAG GAAGCATGGC TTGGGAGGCT TCAGGAAACT
65451 TACAATCATG GCAGAAGACG AAGGGGAGGC AGGCATGTCC TATATGGCTG
65501 GAGCAGGAGG AAGAGAGAGC AAAGGGAGGG ATGCTACACA CTTTTAAACA
65551 ACCATATCTT GGCCTGGCGC GGTGGCTTAC ACCTGTAATC CCAGCACTTT
65601 GGGAGGCCAA GGTGGGTGGA TGACCTGAGA TCAGGAGTTC GAGACCAACC
65651 TGGCCAACAT GGTGAAACCC CATCTCTACC TAAAATACAA AAATTAGCCA
65701 GGCGTGGTGG TGTGCACCTG TGGTCCAGC TACTAGGGAG GCTGAGGCAG
65751 AAGAATTGCT TGAACCTGGG AGGCAGAGGT TGCAGTGAGC CGAGATCATG
65801 CCACTGCACT CCAGCCTAGG CATCAGAGCA TGACTCTCTC AAAACAAAAA
65851 CAAAAACAAA AAGCCAAACA AACAGATTTC ATGAGAACTC ACTCACTATC
65901 ACAAGAACAG CAAGAGGGAA ATCTGCCCCC ACCATACCCC TTCTCCTACA
65951 CTGGGGATTA CAATTCAACA TGAGATTTGG GCAGGGACAT AAATCCAAAC

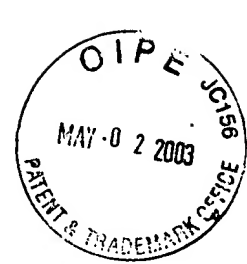
FIGURE 3V



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

66001 CATATCAGAC ACTTTCCAGA ATTTTAGCAG TCAAAAAGCA TTAGATGGCC
66051 AGGTGTGGTG GTTCATGCTG GTAATCCCAG CAGCTTGGGG GGCCAAGGCG
66101 GATGGATTGC TTGAGCCCAG CAGTTCGAGA CCAGTCTGGA CAACATGGCA
66151 AAACCCTTTT GTACAAAAAG TTACAAAAAT TAGATGGGTG TGGTGGCACA
66201 CGCCTGAAGT CCCAGCTACT TGGGAGGCTG AGGTGGGAGG ATCACCTGAG
66251 CCCGGGAAGT CAAGGCTGCA GTGAGCCATG ATTGTGCCAC AGTACTCCAG
66301 CCTGGGAAAC AGAGTGAGAC CTTGTCTCAG TAAGTAAATC ATTAGAGTTC
66351 CTGGCTGCCT AACAGGAAGC ATTTCTGTTT CTTCTCCCTA TGCACATTGA
66401 GCATCAGTCC TGGACCTGGG ATGCTTTTAG ATCTCCATCT ACTATGACTT
66451 ACAGATTTCAT CTTGTGTTT ATCTACAGTC TTTCTCACAA TATAAGTTAA
66501 GCAGGTTTAA CTGCTGAATC TGTGTCAAAT CATTGCACCA AATCATTACA
66551 TTTTGGCCCT CAGTTCACCTG ATACCTTCAC AAGGATGAAA GTGTCCACTC
66601 TTACAGACCA GGGAGCTTTC TCACACTTTA TGCCTCTGAG CAGCACTGTA
66651 TGTAGCGATC ACAAGAAACA CAGTATTTAA AAATAGTCTG TTTTCACATC
66701 TGGGAAGGTT TTCAGTGTGC TGTGTTTAA GTTGGAAAGA TAGTACTATT
66751 GTATCTCACC CAAGTCTGAA AGGAGTGACT GGAGAGTAGA AAGTAGATGG
66801 AAAGTATTTA TTTTCATCATG TCTCTTGGCT GGATTGAGTG AACCCCTCAT
66851 AAAGCCAAGC TGGAATGTGT GCTTCATATT ATTAATAACC AAAATAGAGT
66901 ATCCAGAGAA GCATGATACC CTCAAAATGC CTGGATAGCC TAGAAGAGCC
66951 TTAGCTCTTA CAGCCATCGT GGGGAGGGAT TTTCCAACAA GTAAGACCAC
67001 TTCATGGGGT ACTGTGGGAC TCCAGAGGAG AGTAATGGGG CACTATCCCT
67051 AAAGGTGAAG AAAGATGGGT TGCTGTTATG AAGGGGACAT TCTCATCCAT
67101 TCATTTAGTC ATTCATTTCAT CTATCCATCC ATCCACTTGT TCTCAGAATT
67151 GCTGCTGAAC TCCTGCATGT ATCAGGTAAC ATGCCAGGTG TTGGGGAGAG
67201 AAAGAAGAAG ACACGGCCGG GTTCGGTGGC TCACGCCTGT AATCCCACCA
67251 CTGTGGGAGG CCGAGTCAAG CGGATCACGA TGTCAGGAGT TTGAGACCAG
67301 CCTGACCAAC ATGGTGAAC CCGTGTCTTA CTAAAAATAC AAAAATTAGC
67351 TGGGCGTGGT GGCAGGTGCC TGTAATCCCA GCCACTCAGG AGGCTGAGGC
67401 AGGAGAGTTG CTTGAACCTG GGAGGCGGAG GTTACAGTGA GCTGAGATGG
67451 TGCCATTGCA CTCCAGCCTG GGCAAGAGAA TGAGACTCCG TCTCGAAAAA
67501 AAAAAAAAAA AAGACTCACC ATAAGCAAGT TACTCACCTC TTGTTTCTTC
67551 ATCAATAGAA TGTGGCCTCA GGGTGTCTGAG AGGATTAAAT GCAGTAATTC
67601 ATGAGAAAGG CTTTGAACCTG TGCTTGGCAC ACGGTAAATG CTCACAAAAG
67651 GATTATTATT GCTGCTTCTA TTGCTGCTAT TGTTCTTTAT ATTATTCAGG
67701 GAGCTCAGAT TTTCAAGCAG TGTTTCTTAA TGGGATGGGG TGGGGTCACC
67751 GGGGAGGGGA TGGTTGCCTC TAGGGGGCAT TTGGCAATGT CCGGAGACAT
67801 TTTTGGTTGT TACAGCTGGG GAGGTGCTAT AGACATCTAG TGGGTAGAGG
67851 CCAGGGTTGC TGCTAGACAT CCTACAATGC ACAGCATAGA CCCCCCTCC
67901 CACAAAGAAT TATCCAGTTC AACATGTCTA TAGGTTGAGA AGCACTGGAG
67951 GAAGAGGCAT GTAAGCCAAT AATTACAATC TTTTGGAAATA GAGCTATCTG
68001 AAAGACGTCC AAAAAATGGA GCCCTAGTGA GGCAATAGA GCTCAGAGAA
68051 TATTTTGTGG TTATTTATCT CTTTCAGTCC CCACAGCTGT TCTGTGAGGA
68101 TAATCTTTGG TGCCACATA CAGACGAGGA AATGAGGCAG CAGGAGCTGA
68151 AATGATGGCT TAAGTTCACC TGGTTAGAAA TGGAGGATCC AGGGTTTACT
68201 GCCAGGCAGT CTGACCACAT ATCCCAGGCT CTGAACCACC ATGCACTGGA
68251 ACAGAAACAC GATATCTGGG AGGGATTTCAT TGGGTAGGCC ATGGTTGGAG
68301 GGTATCCCAA TGGCTGGCAT GTGGCCCATG GGAAATGCT AACAAGTTTG
68351 TGGTGACAAG AATGTTATAC TAATCAGTTC CAGATTGAG GCATTGAAAG
68401 TGATCAGAAAT GGCTTGAAC GAGAAGTATG AGAGTACGTG GAAATGAGAC
68451 TGGGAAGGGG GTCGTGGGAG CTGGGCTGAG GAGGTGCTTA GAGGACCTTT
68501 ATGTTGTGGA ATGTCGAGTC ACTGAAAGCT TTAAGCGAGG CTTGGAAGAT
68551 GGAAATTGTC TGCTGAAAAA ACCTTTTAGC AATGAGGAAG TTGGGTTGGA
68601 GGAAGGAGAA ACGGGAAGAA GGAAGACCAG TTAGAATGTT GCAACATCAC
68651 AGGTGAGGGA TGCTGAGAGA TAGAGAAAAG GCTATATTTA AGAAAGTTGA
68701 CAGAGAAAAA TTGAAAAATTA CTCAAACCTG ACTCAGCAAA GATTTCTGCT
68751 ATGTGCTGCA TATCCCTGCA TGGCCTGTAG CCCCCAAGAC TCGGGGGTTA
68801 ATCTCCCCAC GTTAAATCCT ATACCACTTA ATGAGCTGAG TGAATTGGGC
68851 AAATATCATG TTGCCCCGGC CTCCTGTCTC TTCTGTGAAA TGGAGATTGC
68901 GATCACGGTG TCTACCTGTT AGACACTATG GTGGTCTGAG GATTAAACAA
68951 AAGAAGCTCA GTAACTTTGA GCTCTTGTTA TTGCTGCTGC TTATTTGTTA

FIGURE 3W



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

69001 GGAAGGAAG AAAAAAGAA ACCAGAAAAC TCCTAACTGA TGCGCATCGT
69051 GGAGTTCTGC TGAGGGAAAA GAGAAGAAGG TGTCTGAAAT GACTCTGGG
69101 CTTCAAATC TGGATTTTCT CATAGAAAAA TTTTATTTCT ACTGTTCAAG
69151 TGCAGAGTGC CCATCACAGA AGTCGCTCCC AGAGTGCTAG GCTGGGCTGC
69201 TCACACCATG ATGCTCTGTC TTTGTGGCTT GAGCTCAGGG AATCAGCACA
69251 GCAAGTTGCT ATTCATTGA GAGGGTTTAC TGTGGGCATC TAGAATGTCA
69301 TCTTTATCCT TCGTCTTACT GGAGACTGTC AGTCTCACAT TTATTAAGTA
69351 GACACTAGGG CCGGCTCCAC TGATCTCTCT CCCCCTGCT TCTCTGGTTT
69401 GAGGCACAGT TTCAGAGAAC CTGAGGGACC CGGTGGGCTC AGGCGGCCTC
69451 AAAGCAGCAG GTCACCTGAC CAGTGGAGTG ACCACAGATT CCAAGGTGTG
69501 ACCGAGTGAA AGGGCTTATA TCCCCAATGC CTGACTGCAG TTAAACCCCTA
69551 ATGAGGTATG TGGATCTTCT AGAGGAAGGG CCAGGCCCTT TTAATAAGGA
69601 CCCTTCTGAA CAAAGAGACA AGATGCTAAT CCGAATTCCA CTAGGACCAA
69651 GTTTGATGTC CTAGGGCCAG CCGCTTAACC CGAGCTGGGG CTCAGCAGTT
69701 AAGCACATAG AGACACAAA AGATGCATCC GTCTCTAGAA TCTTACCCTT
69751 GAGATGTGAG GGAGTGTGCA GACGATTGTA AATGGGTAAC TTCCTGCAGA
69801 GCTGGTGTAA TAATAAAATA TAGCTACCAC TTAGTGATTG TTTACTTTCC
69851 TCTAGACTCT GTTCTAAGTG CTTGAATCCT CTAGCTCATT TAACCTTGC
69901 AAGAAGCCTA CAAAGTAGGT ACTTTTCTTTT ATTCCTTTT TTTAAACAG
69951 GGTCTTGCTC TCTTACCAC ACTGGAGTGC AGTGGTGCAA TCATGGTTCA
70001 CTGTAGCCTG GAATCCTAG GCTCAAGCAA TCCTCTGCC TCAGCTCCT
70051 CAGAACCTTT CTGGGGTAG GTTGGTCCAA TCCCCTCAGA GTGAGCAGGT
70101 TATCTCACTC CCTGGAAGGC TGGCTTCTCC CCGCTCTC TTCGGTGCTT
70151 GCCTCCAGCA AGTTACTGAA GTCTCAGAG GCCTCTCCAC CGTGAAATGG
70201 ACAGTGTCTG TCTGTGGGAC TACAGGTGGA TACCACCAGA CCCAGCTAAT
70251 TTTTAATTTT TTTTCTTTT TTGGTAGAGA CAGGGTCTCA CTGTGTTGCT
70301 CGTCTGGTC TGAACTCCT GGCTCAAGC AATCCTCCCA CCTCAGCCTC
70351 CCAAAGTGCT GATATTACAG GTTTGAGGCA CCATGCCAG TCTGAAGTAG
70401 GTTCAATCAT CATCTCATTT TATGGATGAG GAAATAAATC CCAAGAAATT
70451 AAATAACTTG TCCAAGTCCA GACAGCCAAT AAGTGATTAA ACTTGGATTT
70501 GAGCCCTGGG AAGCCAGACT CCAGAGCCCA CACAATGAA CCCTGTGCC
70551 ATACTGCTTA CTTGCATCAA TGGTGAGTAT CCCCCTACTA ATATGTAGAC
70601 CTCTTCATAA AGCTTTTACT CCAAGGAAAA GGCTGGAGGG AGAAGGAAAC
70651 ATGATTCAAG AAATCGGGCT GTCTGGCATG GTGCTATAGC ACTCCACGTG
70701 GGGAATATTG TGTTTTCAAA GAAAGGGTGT GTTAGAAGGG GAATGATCAT
70751 GGACGTTATA TCAGATAGAC TTGGTCCCTC AACACCACTA AACCTAAGGC
70801 CCCTCCTCAT ATTAAAGGGA TCACAGTCCT CATTAGGATG ATTGTGGGGA
70851 GTGAGTGAAC CTAGCAGAGT GCCTGGCATG TCACTGGCAT CAGGAAATGC
70901 TATTTCTTTC TCCCACCCGT CTTTCTTCTC TCAAGCGAAC TGAGTAGACA
70951 AAGATAATTA TACCTGGAGT ACTTGCAATT CTTTGGCAGT AGAATAAAGT
71001 AAATTAATG TATTTTGA GTTGAGGTTT CCATGAACCT GATTGTGGCG
71051 TCACTGTGTC CCAAGAAAGC CTTTATCTTT GACGTCCTCA CATGCCGCAA
71101 TTGCTTATCT CCCTGTTCCT AGTGCAATTG TCTTAGAAGC TTCTATACTG
71151 ACTAGTCTTG GAGAAAGCCA TAAACATTC CTCTTTTGTG ATCCTCAAAG
71201 AATAAAATCG TGAGGAGCCT TCGCTGACTG ACGGGGAGT GTAGAATGAA
71251 TGCTTCGGTT TGCAGGGATG ATCATTGGCA GCAGTCTTTT TTCAGGTTAT
71301 GAATTCGTAG GTTTCCAGTA TGTTGAAGA TTTTGAGTGT CTTCAGGGGA
71351 GCTCGAGTGG TCCCAGGCT GCCATTTCTT CTGGTCATAG CCTCGCTGAA
71401 GGGAATAGCA TTTCACGGGA GTGGGTTTAG GGTGGATGA GGCACCCATC
71451 GGGAAGGACA TGGGATTTT CATTCTAAGT GCCTTGCCAT AAAGCAAACG
71501 ACAGGGGTCT ATTCTCTCT CTCTGGAGAA TGTTTCTGGG GGCAGGTTGG
71551 TCTAATCCCC TCAGAGTGAG CAGGTTATCT CACTCCCTGG TAGGCTGCCT
71601 TCTTCTTGG CTCACCTCAG TCCTTGCCCTC CAGCAAGAGG GGTCTCTCCA
71651 ATGCAAAATG GTCACGTCT GTTCATGATA GTTTTCTGT CTGAAGAAAG
71701 TCCCGGGGCC TTACATCTGA TGGCTGGGCT TAGGTCTGGA ACTGCCTGGA
71751 GCATGAGCCT TTTGGGGGGT CTCTTCCAC CTGCTTTGTC TCTCTCTCTC
71801 TCTCCCCCTC ACCCTGACTG GTCCAGTGAC TCTTTATGTT GGTGAACAGA
71851 AACTTTACCA TTGGTTTTCA CTTTATGACG TCTATGGGCT TCCCCTCTCT
71901 GCCCCAAGA TGGCGTCTCA CTCTGTTGCC CAGACTGGAG TGCAATGGTG
71951 AGATCTTAGC TCACTGCAAC CTCTGCCTCC TGGATTCAAG TGATTCTCCT

FIGURE 3X



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

72001	GCCTCAGCCT	CCCAAGTAGC	AGGGATTACA	GGCTACTTCA	CCACCCAGC
72051	TAATTTTGT	ATTTTATAGTA	GAGACAGGGT	GTTGCCAGGT	TGGCCAGACT
72101	GGTCTCAAAC	TCCTGACCTC	AGGTGATCTG	CCCACCTCAG	CCTCCCGAAG
72151	TTTTGGGATT	ACAGGTGTGA	GCCACTGTGC	CGGCTAAGGA	TTTTTTTTTT
72201	AATCCTTTCC	AAATAGAGTT	TCAGATACTT	TGCTCAGTAC	TGTGTTTGAT
72251	GAGTATTATT	TGGCAAGATT	TATTATTTTT	TCATTAAAAA	ATTAAAAATG
72301	ACCTATAATA	ATTGTATGTA	TTTATGAGGT	ACCTCGTGAT	GTTTCCATAC
72351	CTACAATGTA	TGATGATCAG	ATCCGGGAAA	TTAGCATATT	CATCATCTCA
72401	AACATTATC	ATTTCTTGT	GTTGGGAACG	TTCAATATCC	TCCTTTTAGC
72451	TATTTGAAAC	TATATACTAG	ATTATTGTTA	ACTGTAGTCC	ATCCTGCAGT
72501	GGTATAGAAC	ACTAGAATTT	ATTCCTGTTA	TCTTGCTGTA	ATTATGTCCC
72551	GTTTAAACAAA	TCCTTCCTTA	TCCTCTGCTC	CCCTGACTCT	TTCCAGTCAG
72601	CATTATTTAT	TAGGCACTGA	TTCTGTGCTG	GCTGGGTGCT	AGAGAGTTTA
72651	CATATATTAC	TTAGCTTCAT	TTGCCTCTCT	CCATTGCACC	AAGAGGCGGC
72701	CACTGTTGCT	GCCCCATTTT	ACAGAGGGTA	AAGTTCTTGC	ATCTAGCTAG
72751	TGACCAAAGC	AGGACTTGAG	TCTAGCTAGA	TCTCTCTGAC	TCCAGAGGCC
72801	ACGCTCTCTT	AATCGTACTC	TCCTTGGCTT	GACACGGTGG	GCTTAGAGAG
72851	TACATAATTG	GATCAAGACA	AATTCCTCCT	GACGAAGGGA	AAACCCACTC
72901	AAACAACATG	ATGAGCAGGC	TCCTTTGTGA	CAGTTAGTGC	TTGCCTTCTA
72951	ACGCAGAGCT	CTCTCTCCTG	TCCTCTTCCT	GTATTTGTAA	CCTTCTTGAC
73001	ATACAGAGAG	CCTGCATGAC	AAGGCTGGGG	TGCCAGATTG	TTGGCCTCTG
73051	GCTTACTGAC	TCAATTTATT	GGCTGTGCGC	ATTGGGCCTG	ACTCTACCAT
73101	GTTTTAGTGG	AGAAAGATTT	AGTCTAAGAT	GTGGGCAGCG	GCATGTGAGG
73151	AGTGGGTATT	GTGCTGTGGT	CCTGGGTATG	AACCTTTGAT	GTTGTCATGG
73201	CAACCAAAGC	TGCTATTCTG	CAGATGAGAG	GACTAGATAT	TATGAACTGT
73251	CAAACGTGTC	TCTCCATAAC	CAAGGAGATG	TTGGTAATCT	CCTTGGTAAT
73301	TTGCATGACC	CATAAACATT	TCCCAAGGCT	GTGGCTCTGC	CCTTCTGCCA
73351	AGACCCGAGT	CACTCACTTG	CTCACTCACT	TACTCATTTG	CTCACTCACT
73401	TATTCATTCT	TTCAATCAAC	AAACTTGTTG	ATTGCCTACT	GTGCTAGATG
73451	CTGGGATGTA	ATGGTGAATA	AAAGACAGAC	ATGGTCCCTG	CCTTCTTGGA
73501	GCTTATAACT	AGGATGACCA	AATGTCCCAG	GTTTTGTGGT	TCTGGAGTAA
73551	TTGTTAATAG	TGCCCCTTTC	TCTCTCAGAA	GTGTCTGGG	GCTGGGCGTG
73601	GTGGCTCATG	TCTATAATCT	CAGCACTTTG	GGAGGCTGAG	GCAGGCGGAT
73651	CACCTGAGCT	CAGGAGTTTG	AGACCAGCCT	GGGCAACATG	GCAAAACCCC
73701	ATCTATATTA	AAAAAAAAGT	GTCTTGTTT	GAAATATAAA	ATATATAGTG
73751	ACCCTACTTA	TAGACAGTGG	GAGAGCCAAA	CCTTATGCAT	GTTATTACAC
73801	AAATAATTGT	AACTAAAAGC	CAGATGAAAG	TTGCAAAGGA	GAGGGAGCTA
73851	GAGCTATGGG	ACACCCAAAT	AGGAGAACTG	ATTTAGTAGG	ACAAAGATTC
73901	CAGGCAGAGA	GGGCTGAGTC	AAGGCCCTGG	ATGGGAGGAA	GCAACATGCC
73951	ATGGCTGAGG	ACTTGAGAGA	AGTGAGCAAA	TGTGGCCAAA	GGGCATTTAG
74001	CAAAGGGAAC	TTAGAAAGCA	ATTTGGCTGG	AGACAGGCAG	GAGCCAAACC
74051	ACGCAGGTGC	TGATTCTGAA	TTTTATCTTA	AGAGCACTGT	GAAGCTTACA
74101	GTTATGTTTT	CAGTAGCAGA	GTGATATAAT	CTGGTCAATC	AGTACATTGC
74151	CATTTTGGTT	CTTCGTATAA	ACCCAAAGGG	TTTTAAGTTA	TTTGTTCATT
74201	AATTCAATAA	CTAAACATTT	ATGGAGTGGC	AACTGTGGCA	CTCTGCTAAG
74251	TGTTTTGCTC	TGGAGTTCTG	AACTCAATTG	TCCTCAGTGG	TGCCAAAAC
74301	CAACTCTTGG	GGGAAGCCTT	TATGGGCCCT	TTATGTTGGG	TCGTGTCCTG
74351	CTTGGCACCA	TTTGCCCCC	ATTTGCTAGA	CTCTCTTGGA	TGACCTTTAC
74401	TTTTCTCTGT	CCTCTTTCCA	TGACTGTGAG	CTCTTTGAAG	TTGAATCTAT
74451	GTCTTTTATC	AATATATCCC	TTCTGCCTGG	CACAGTGGCT	GGCCAATAGA
74501	AAATGCTAAA	GGCTTGAGGA	ATGAAGGAAT	GGTGCTTTTT	GTGTCTGACC
74551	TTTTTTTTTT	TTTTTTTTTT	TGAGACAGAG	TCTTGCTCTG	TCTCCCAGGC
74601	TGGAGTGCC	TGGCATGATC	TCAGCTCACT	GCAACCTCCA	CCTCCTGGGT
74651	TCAAGCGATT	CTTCTGCCTC	GGCCTCCCTA	GTAGCTGGGA	CTACAGGTGT
74701	GCACCCACAC	GCCCAGCTAA	TTTTTGTATT	TTTAGTAGAG	ACGGGGTTTC
74751	ATCATATTGG	CCAGGCTGGT	CTTGAACCTC	TGACCTTGTG	ATCTGCCCAC
74801	CTCGGCCCTC	CAAAGTGCTG	GGATTACAGG	CATGAGCCAC	TGTGCCCAGC
74851	CTTTGTATCT	GTTTGAAGAC	CAAGAGCCCT	TCATTTAGAA	CTTTCACAGA
74901	AGGAAAGCAA	AAAATCTTT	TGTTTCTGTT	TTACAAGTCT	TTTCTTTTGT
74951	GTCTGGTTGT	CAATAGTACT	TCTCTGGATC	CGCCTCCTGT	ATTCAAGTGA

FIGURE 3Y



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

75001	TTTTTCTGTC	TCAGCCTCCT	GAGAAGCTGG	GACTACAGGG	GTGTGCCACC
75051	ACACCCAGCT	AAGACAAAA	CTCACCTTGT	TGTCTTCTTT	ATGCATGAGC
75101	AGATTCCCTT	GGTATCTATA	GCCGTCGAAG	CTTTACGTAT	TTCCCTATTT
75151	AGGGACATAA	GAATTTTATG	GAAAGCAGCG	TGTTGGAAAG	CACGGCACCT
75201	GAGATGTTCA	TGGAAATCCT	TGTTGTGACT	TCAGAGTGCA	GATCTAGAGC
75251	AGCCCTCTGT	TTGTCTGCCC	TGGGCCATCC	CCTATTTCAA	GCAGTCTTTA
75301	GTCCAGGAAG	TTTAGGTAGC	AGCTCAGGCA	GCAGGTGAGC	TCTGGAGAGT
75351	GCAGGTTTCG	GTTCTTTGAG	CCCAGGGGCA	CAACTCTGAG	TTGAAGTGAC
75401	TCCTCCTGGC	TGTTGCTTTG	AATTTAGAAG	AGCTGCCCTT	TCACCAGCAA
75451	GGCAGTCACG	CAAAAGATGC	TTCAATGTGT	GCAAGATCAG	GCCTGCAGCC
75501	CCCAGCCTGT	GTCTACAGGC	CTCCGAGTCA	TTATTATTAC	GGTTTCTATC
75551	CCTGGGGTTA	TTGATTTCAT	CACTGTTTAG	TGAAGGAGAT	CTAAAGCTTT
75601	TAAGCCAGAA	ATTAAAGAGG	TAATGGAAAT	TGGCATGCCA	CTGGAAAATG
75651	AATTTGCAAA	TGAGAATTCA	ATGTTCTAAA	AAAACCTCCA	TAAAAATAAA
75701	ACCAAAACCC	AGAAGTGAAT	GCTCCTGTGA	CTGCATTTTT	TTCCAAATGT
75751	GCATGGGTTT	GTTCTCCTTT	AGAGTGTTGG	TGTATACATT	ATGGAATAAT
75801	GAGATTTTGA	TGGTGTCTCG	TTCTTACAAT	TGCTCTTATT	ACTTATCACA
75851	ATACAATGTA	TTCATTTATA	TAACATAATAT	TTACTTAGTA	CCTATAATGA
75901	AGCAGGTGCT	ATGTTTGGCT	CTAGCGATTA	AAAAACAATA	AAAAATGCAA
75951	GATGCCTCCA	CCCTGTCTCT	AGGGAGCTTG	AGGTTTCAGTA	TTAATTATAT
76001	CGCTAGCCAA	TTCTGGCATG	GTGCTTACTG	TGGACAGGAA	CTGCTCTAAA
76051	TGCTTTCAGT	TGAGTAACTC	ATTTAAATTT	TACATTGATC	CTATGAAGTG
76101	GGGTAAGCAA	CAGAGGAACA	GAGAAGTTAA	ATAACTTGCC	CAAGCTGAAG
76151	TGAGAGGTGG	AACTGTGATC	CGGCCAAGGC	AGTCCGGCTC	TAGAATCCAT
76201	GGTTTTTATG	CATGATGCTC	TACTCTAGTG	GATAGTTACA	GCCCAGTAGC
76251	TATTGGTTAC	TAGATTGGTT	CTAGAAGACA	AGGAAGCACT	CAGGTCTCTA
76301	GTACACAGAG	AGGAGTCTCT	GACTCAACCT	ATGGGACCCC	CAAGAGGACC
76351	TTCAATTCACC	TGTGAGTCAA	CTGCAGAGAG	TCGTGATTAC	CTCCTGGTTG
76401	TCCTTTTAGAG	TGGCAGGGCT	TTGTGTCTTA	ACATAAGGTG	TTGAAGCTGG
76451	GTCACCCCTT	TCGATCTAAA	ACCAATGTCC	ATGGGTTATC	ATTGAGGTCT
76501	GCAATTAAGA	GTAGCTTGTC	ACTTTATATT	GGGAACATTT	ATTTTTCCTT
76551	CCTTCTCTAT	GGAAATGGGC	AGAAGAGATG	AAAAGCCTGC	TGGTGCAGCT
76601	TAACTTTCCT	CAGTAAGTGA	GTGTTTAACC	TTTTGTTTTT	TTAAAAATGG
76651	AGATGAGACA	TACAAATTAT	GACTTCTCTA	TGTTGTCTCT	TTTTTTAGTT
76701	GGAAGAAAGT	GACATGACAG	ATGAGCTTTA	GAAAAATGTT	TAGAAGGTGA
76751	ACAGAGAACT	ATTCTGTGAA	GATAGGAGGC	TAGAGTTAAA	AGAGAGGACT
76801	TTTAACCACT	CTCAGCTCTG	ACACTTCCTA	ACTACTATAA	CCTCACAGGA
76851	TTTTGTGAGG	ACTAAATAGG	ATAATAAGGC	GGAGTCTGCC	ACATTGCAAG
76901	TGCTGGCAGC	TATGATTAAT	TTTAGGAGTA	TTCTAGAACT	TTCCCTGAAG
76951	TTTCTAGCAT	TGCTGCACT	TCCTTGTTC	TCCCCTTATC	AACTATGCT
77001	CAGGGAGATT	TGGTGACTCA	TTCTTAAGGA	GGCACAGAAA	ATGATTTTTT
77051	TTTTTTTTTG	CACAGAACT	TGTTCTGTAA	AGGGCAGTCT	TGCTCTGTGG
77101	AGGCTGGAGT	AAAGTAGCAC	GATCATGGCT	TACTGCAGCC	TCTGCTTCCT
77151	GGGCTCCAAC	GATCCTCCCA	CCTGAACCTC	CCGAGTGGCT	AGGACTACAG
77201	GCATGCACCA	CCATACCTGT	GTAATTTTGT	TATTTTGTGT	AGAGATGGGA
77251	TTTTGCCATG	TTGCCCAGGC	TGGCCTTGAA	CTCCTGCGCT	CAAGCAATCC
77301	TCCTGTCTCA	GCCTCCCAAA	GTATGGGGAT	TATTGGCATG	AACTACCATG
77351	CCCAGTGGGA	AATGAAATCT	TAATTTGTGA	TTAATATTGA	TCACTCAAAA
77401	GCAACAAAGA	GCCCTAAGGT	AAATAGCTAC	AATAAAAGCA	AGATAGCAGA
77451	AGCCTCTCTT	TTTCATGATG	TTATTAATCA	TCTAAATATT	AAATTCAGG
77501	CTCTGTTCAA	TGCAATGGCA	ATGGAAGGAA	TAGTAACCTT	CCATTAGTGT
77551	CACAGTGTA	TGAATCAGAA	TTCTTGTAAG	TGCTTTTGTA	GTCCAGTACA
77601	GTTTTTTAAA	AATAGAAATT	GGATAGACCC	ATTTTAAATG	GGAATGATCT
77651	CAAGTGACGA	GAGAGCAAGG	CATATATCAG	ACACTCTCCT	CAGGACCAGG
77701	GCAATTTTTC	AACATCAGTT	GGCAAAATTG	TTATTCTGCC	TGTAGAGTGT
77751	AAGTCCAAAC	TGAGATGAAA	GAGTGACAGC	TTGTTAGTCT	GAAAGTTTAT
77801	TGATCATATC	AAAGTATACA	CATCTATCCC	TGATTCCTTA	GTGGACTTGA
77851	TACTTTCTCT	GTGGTTTAAA	ATTTGTCTTA	TTTCATCCTT	CCATGTAGTC
77901	AAAGAGAGAC	AGAGGAAATG	CATTTTCCAT	CATAAGGCAC	AATTTGGAAG
77951	CTACAAGAGT	GCCCCCAAAT	ATGGCCTGGT	CTCATAAGAT	AATATTTAGA

FIGURE 3Z



Docket No.: CL000858
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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

78001	TAGATTAGTC	GTTAGTGAAT	ACCCAAGGGG	CTAATGAATT	GAGTCTCAGA
78051	AATCCCCATT	GTAAGGGATT	AACTTGTAGT	AGCAAGGAAA	GCTAGCGTGT
78101	CTAAGACCAT	ACGCCATGAG	CAAGCATGCT	AGCCCATCCT	GGGTTTCTCT
78151	CTCCTCTTCT	CCAAACAGAT	TCTCCACTTG	CCCTGTCCTT	TCTGCCAGTG
78201	GCCTTCACCT	TAGATTTATA	ACTAGGCTGT	AAAGTTCTAA	TGAAAACCTTG
78251	CTGCCTGGCT	CCCTGAGGAC	CTGAGGAAAG	GCTAATATTT	GCACATAACT
78301	GGGTACTTAG	GGCAGTAGGA	AAATACACGT	CATTGTAATA	TCCACCACAG
78351	CACTGAAGGT	GCCTCTTTCT	TTACCTTTT	ATGGTCTGGT	CTGCTTTTTA
78401	TGAGGGACTC	TGAGGTGGTG	TGGCAGTTAG	GAAGGCCACT	TGATTGGGGC
78451	GTGTCCACTC	AGGTACAGCC	AGGCTTGACT	GCCATATTGG	CTGTGTCTGG
78501	GTGGGAGGTA	AAGGCACACG	TGCGTCAGCC	TGCATTCTCT	TCCCTTCGTC
78551	CTATTGCAGG	TAGCTGGGTG	TCCCAGGCTG	GGTGTGAGCC	AGCCTGCCCT
78601	TCCCAGATGT	GGGAAGCTGT	GCGTCTGAGA	TAGAGAAAAA	AGAACTCAAG
78651	GTAGAGAGAA	GCGCCTTTGC	AGAGTTCAGG	ATGGTGAAT	TCCTGTTGAC
78701	AATTCTAAGA	GCCTGTTTGT	CTAGCTTTGC	TGCGCACCAG	ATGTGTACTG
78751	TACACACAGC	ACTTTACCAT	TCTCAGTGTC	ATGAGTCCCT	TGGGGGCAGC
78801	AGTGTGCCCC	ACTGTACTAG	GTCTCACCAC	GGGCTGAGTT	AATCTGTACT
78851	CTAGGAAGTG	CTCCGAAAGG	GTTCTCTGTTA	CTAATACTCC	TGAATAAGAA
78901	ATGACAAGGC	ACAGTGCCCTG	AAGTCTTATG	TTCATTTTTA	GACAACTCTG
78951	ACAACAACCT	TGTATGGAAG	GTATTAGTCC	TCATTTTATA	GATGAGGAAA
79001	TCAAGGTTCA	GAGAAGCTGA	ACAGCTTGCA	AGGCTGAATG	GTTACCGCTT
79051	TATCCAAGAA	CTTTCCCTGT	TGCAAGAGTA	ATGTATGAGG	TGCTCCCACT
79101	GTCTTCTCT	GCACTGAATC	CAAGACATCT	CTGAATCAGC	CACAAAAGTG
79151	CCTCACTGGG	TGTGGCCCCA	GAAATCCTCT	CTGAGACCCT	CCCATGGTTG
79201	TTTGAAATAT	TGTGAACTCA	CCTTGCCCTT	GGAAGATFCA	CTTGTGTGGC
79251	TGTGGAATAT	TTATATGTGA	AATACTTCTG	AAGCAGGTGA	AAGAAAAAGT
79301	AATTGTGGCA	AGCAAATTAA	ATATTGTCTT	TCCACTTCAA	ACCCGAGGCT
79351	CTTCGGCCAT	AAATGTGTGA	GGAGGTGGAG	AGATGTTGCT	GCCCTGCTGC
79401	TGGGGTTTGT	AATCATTAGG	GGCATTTTGT	AGTAGTAATG	AATGTGGTCT
79451	GCCAGTTGCC	TTTCTCACAG	AGTTTGTGGC	TTTCTCCCA	ACTGCTAATG
79501	GCTGGAATAG	GCTCCCTTTT	TTTTTTTTTT	TTTTTTTTTC	TGAGACGGAG
79551	TCTCGCTCTG	TCCCCCAGGC	TGGAGTGAGC	TGGCGCGATC	TGGGCTCACC
79601	GCAAGCTCAG	CCTCCCTGGT	TCATGCCATT	CTCCTGCCTC	AGCCTCCCCA
79651	GTAGCTGGGA	CTACAGGCGC	CCGCCACCAT	CCTGGCTAAC	ACGGTGAAAC
79701	CCCGTGCCCTA	CTAAAAATAG	GCTCACTTTT	AATACATTTT	AGAAAACCACT
79751	TTCCACATTC	ATGCCCTCAT	CCTGCCTCAA	TCCCTGGCTA	AATCTCCAAT
79801	TCATAATCCC	TTTGCTGACT	GTGCCGTTCA	GGGAGTAAGA	ACGTGGTGGA
79851	CGCAGCCACC	ATTGTACCCT	CAGATGAAGT	CCTTTCTCGA	GAGACAAACA
79901	GTCTGTTAGT	AAAATGACCA	TACATCCTGG	GTTGCACCTG	TCCTGTGGTC
79951	CCAGCATAGC	TGTTAACAGA	GCTACCTTTT	TATTTGCAAG	TTCCCTGCTT
80001	TGGACAATAG	ATCAACTGGT	CATCCAGCTA	TTAGCGTCAA	TGCATAAAGC
80051	ACGAATCTGT	TGTATTCTTC	AGCCAATCTG	AGACAACCAA	GAGATTACTG
80101	CTGCACCTTT	GTTTGTCTTT	CTTTTGTGGT	GCACATAAGG	AAACAGAGAA
80151	ACAGATGATC	TCACCGAGTG	CACAGATCAT	AGGAGAAAAG	CCACAGACAG
80201	TTAGTGGTCC	CCTGTGGGTC	ATCATTCATC	CCAGTGCAGC	ACTAACGCTC
80251	ATGATGGTAT	CGCACGCTGT	CTGGAGCAGT	GATTTCATGT	GCTGGCGTTG
80301	CCTGATGGGA	GGAAACTGGT	GGGGAAAACG	TGGTGGGGGG	TCCTGTGAGG
80351	GGTCCAGTTA	CCTCCTCCTC	CTCTCTTTCT	AAGCGCATCA	GCTACAGACC
80401	CGCCTCACTT	TGTGAGAGGT	TGCAGTTTCT	CTCTTCTGCC	TGTCAGGTAG
80451	TCCTAATGCA	TGGTGTGGGG	GAGGGAGGAC	AAGGGAGAAA	GAGGGGCACA
80501	GAATCTTTTA	GATCCTGCCC	TCTTTCAAGT	CAGCTCTCCA	CCTCTTTTTA
80551	AAAGAAACAA	ATCATTATTA	TTTTGTTGTT	TTTGTTGAGT	TGCTTTTGTG
80601	TTTGTCTAAT	TTTAGAAAGA	AGTAAAATGT	TTTCCTCTCA	CACCTCTGGG
80651	AAGATAATAT	ATCTAAATTT	ATTAGTTTAG	TTTGTTTCAT	TATTTATTGT
80701	TAACTTAAAA	CATTCACCTC	CGTGCCATT	ACTGGGTAGC	TGAGTGGGTG
80751	CTGGAAATGC	CAGCTTAGAG	GCTAAAAAGG	AAATTCAAGG	AGGAATGGAA
80801	TTAAAATGTA	AAGTAATGCC	CTCTTATCTA	CAGTATCCCC	TCGTATCTAA
80851	TTATCTGTCT	ACCTCTATTG	AATTATCTGC	CTGTGTGAAT	TTTTTGATCC
80901	TTGTAAGATC	TCTCTGAAGT	TGATAATGGT	TGAAGTTGTA	AGTGAACAAA
80951	TGATGCTCAC	TGAGTCTGAA	ATTATTAAAT	AACATTGGTT	GAACCTCTAC

FIGURE 3AA



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

81001 CCTGTAACAT CTTTTGAGCT AAACGTGTCC GAGCTCAGTT GTGCCATTTC
81051 ATCATCTGTG TGCTCATACA TTCTAATGGG CTGCCCTCCA TTCATTCTG
81101 CAGCCTGAAT GCAGGTAATT TTTTCTTTTT TTTTTTGAGA CAGAGTCTCA
81151 CTCTGTGTCG CAGGCTGGAG TGCAGTAGCG CGATCTCGGC TCACTGCAAG
81201 CTCCACCTCC CAGGTTACAG CCATTCTCCT GCCTCAGCCT CCCGAGTAGC
81251 TGGGACTACA GCGCCCGCCA CCACGCCTGG CTAATATTTT TGTATTTTTA
81301 GTAGAGATGG GGTTCACCA TGTTAGGCAG GATGGCCTCA AACTCCTGAC
81351 CTTGTGATCC ACCTGCCTTG GCCTCCCAA GTGCTGGGAT TACAGGCATG
81401 AGCCACCGTG CCCGGCTGAG AAAAATCTTA AAAGCAAATG CATTTAATTT
81451 TAAAATGTTT TACTTGAGCT CAAACAATTA AGATCATTTG AAAATACTTC
81501 GAAAATTAAT AAAAATTAGA ACTGTAAACT CAATTAGAAT TATTATTATT
81551 GAGTTAAAAA TGATGTTGCC AATTCAAATG GTAACGTCAG TTATAACCCG
81601 AGTTTGCTGA TTCATTGAA TTCTGGTTGT TTGCCAGAGT TTTTCAGAGT
81651 CATAAGATCC AGATAGAAAA TCAAACCTCA TTCTCAGCAT TGGGGCTTTC
81701 TAAAGCCTTG TCAGAAATTT GGTGACTCGT GGGAGAGCTT ATTTTCTCC
81751 TTTTCATTGA GTCTTGCTCT CAAGGAGTTA GTTCAGATCA TCAGTGGCCC
81801 TACTTTGCCC ATAACAAGCC TTATGTATAA TTTCCACAAA ACTGCTTCCC
81851 CAGGGCATTT GGGTGCATTG GCCATTTTAC TGAAGATTG GCAGGGAGAG
81901 AGGAATTGAC GTCACAGATA GAACCCAGCT GAAATTGGAT ACTAGATGGA
81951 GTTGCTCTTC AAAGACTTGG GCATTGCCGC TACGGAGCCT GAATTTCCCA
82001 CCTGTCAGTT GACACCCCTT TTTGTGCTTT TATTTCTTCT TGTCTCTCTT
82051 TTTCAGGGCT TTTCCCTTTT CTCTGATCCT TCCCTCTTAG GGTATAAAAA
82101 TCAACCTTTT CCTACTTTAA TTAATTTATT CTTTAATTTT ATTTTAACAC
82151 AGAGCGACTC ATCTCTAATC AGCTTCAACA GCCAAGTGAA GTTTGGTGTC
82201 TCCATTTGCA TGTTCAAGGA AGTAGTCTAA TTAGAAATGA TCTCTCGTGA
82251 GGTCTCTTCT GCCTAAATTC TGGGACAAATG GCTATCCTCC TTCCTCATCT
82301 GTCTGGAGGT GAAGATGGGA GTAGGGGAGG CAACATGCAT TCTAGGTACC
82351 AAAGGTAGAG GAAAGGCAAA ACCATCCGCT TTGGGCCAGA CAGGGTTGAA
82401 TCCTGGCCTC TTCACTTCCT GGCTGGGTGA CCTAGGACAA GTTAATTAAG
82451 TTTCTTGAGC CTGTTTCCCC ATCTCTAAGG TGGGGGATAA TACTACTTTC
82501 TTGCAAGTTA TGGAAAGGAT AGAATGGAAT CACACACAAG TTGTAGAAAG
82551 GATAAAACAG AATGACGCTT CTAGTGACCC TGGCGAAAGG CAGGCACTTA
82601 ACAACTGTTA GTTCCCTTTT CCTTTCAACT GATAAACACT TTCCTTGAGG
82651 GTTACATAGG TAAACATTAA ATATTTATGA ATTGCATAAT TCAAGAAAAA
82701 TGAAACTTGA AAAGGATTCT TCAGATTTTT TGATGAAACA AATCATCGTC
82751 CCCATTGTCT TTTGTGCAAA TCTGTGTTTT TGTTTGCAGT GCTGGGTTTG
82801 CTTATGACAT TTGTGTGCAA TTCTCAGCAC CGTGAGACTT GAGTGAGCCT
82851 AACCTCTCTT CACAGCTTGA TAGGAGTTGT AAATATTAGG TACTGATGGT
82901 ATGATTTGAG GCAACCTAAG TGACTGAAGC CTAGAGCCCT CCCTGCGGTA
82951 TTATTTCCAA GTGGGCTCAT CAGAGCTGAA TTGATAATGA AGATATAAAC
83001 ACTGGTGAAG GCTTTGTGGC TTGGTCTGAT GGTACTATA CGGCACAGTG
83051 AAAATGGAGA TGCTACCGGT GGAAAGGACT CACCATCTGT CTGCCCTCTA
83101 GAGCAGAGCG GAACATACCT CTGATGATTA TGTGACCACT GTCAATTAGG
83151 CTGATTTATG CAAAGACAGT CTGTACACAT CCCATGCAGC CAGATTTTAA
83201 ATTCTAGGGT GCCAGGTTTT GCTAGAAACA GTGGCCGGCT GCGGTCTTGC
83251 ATAATATTCC ATGTTCTCTT AGAGGCAGAA AAGAATAGAC TCACGACTTG
83301 ACAGAAGGTG CTTTTTCCCC CTGTATCATC CAGTCAATTG TCTATGAGTC
83351 TGCCAAATCT AGCTCGCAGC ATCTTTTGTG ACAACCCCTG AGCTGAAAAAT
83401 GGTTTTTGCA TATTTAAAAG ATTATTTAAA AAAAGAAAAA TATCCAACAG
83451 AGACCCATAT GTGGCCCAAC AGGGCTAAAA TATTTACTAT CTGACCCTTT
83501 ATGGAAAAAG TTGTTGATCC CTGGTTCAGA GTGTTTGAAA TAACTCAGAT
83551 GAAAGAAGGC AAAATGTAAT GATGATTGAC TTTTCCAGTT GTAATCTGAT
83601 TTGTGACAAC CACTGTATGC CTGTTTAAAC AAAGCTTAAT GGGCATTACT
83651 TAGGATAAAT GTAATTACGT TTCAATATTT GTGTCTTGCT CTCCCTACAT
83701 AGGGTTATTC CAGGTTTGCC CAAGGAACAG AGAGTCTGTT TGTGTTCTA
83751 GAAGTAGCTC CTGTGTCTGT CACCTCCTCT CCAAGGCTTC CACCTGTCGC
83801 TTTTTTATCC CAGTTCACCC GTGTGAACAG CATGTGTTTC GGCTGCCATG
83851 ACAGCACGTC CTACCTTTTT CCCTGGCTTG AAAGAAGATG GCAGGGGCCA
83901 GCTCAGGAAG AACTGTACG GAGTTTTTTC ACCTTCTCCT GCTCGTGATG
83951 AGGCTAGGGA GGGATTTTTA GCGTATCTTT AATTGTTGCC GAAGTATGAA

FIGURE 3BB



Docket No.: CL000858
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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

84001 CTCGGGGAAG GGGGCAACTG TGAAGCAGTG ATGCATAGAC TAAGTCTCCT
84051 GGAAGAAGCA GGGCTTGAAT TAGACCCAGA AGGATGGGCA CCGTTTGTGG
84101 GAGGGCACAG GTACATAAGT ACAGGGAACA TGTCATGGAG TGTCTGCCC
84151 AGAGTGGGGA ATTTATAGCA GTGTGAGATG AAAATGGGTC ATCATTGTGG
84201 CCAGTTTGTG GGAATTTTA AGGTGTATGG AATTCCAATT CAGTTATCAT
84251 CAAGGAGTCA TTGTAGCTTA TTTTAAAAA GAGCGATGTG TGTGTGTGTG
84301 GTGTGGGGGT GGGGGAGAGT GGAATGACAA TCATGAAATT GGCTACTGTT
84351 TGGTAAACCC TAAGTGGGAG CCAGACATTT GGCTAAGGGT GTTACTTGGG
84401 CCATCTCATT TAATCCTCAC AACAACCCTG TGGGGAAGGT ATTATCTCTA
84451 GTTTGCAAAT GAGGAACTA GGCTCAGAGA GGTTCAAACA ACTTGCCCAA
84501 GGTTCTGAAG TTAATAACGG CCACAGCCAG GATGGCTCTT AACTCCTGCC
84551 CTGTGGAAAC AAGCTCAACG TAAAACATTC TTACAAGACA GAAAAGAGTG
84601 AAAAAGCAAC CAAAATCCTG CTTGCGGAA ATGCCCACTT TGGGTGAACA
84651 TTCTTCTAGA CATTTTTGTG GTGTGTATAT GCACAGAAAC TTGTAACATT
84701 TTGCATAATC TGGGCCACCC CATGCCGTGA AGCTTTCTAT AAATGTCACC
84751 ATATTCTATA TCCTAGCGTT TCCCCCTAT TTAACACTAA TTTTCTGATT
84801 TTCACAACTG GGTGCATAGT ATTTTGCTTT GGGATGCTAC CATCATCCAC
84851 TTAACCACTT CTCTCTAGAT CACTGCAGGT TCTTGAGTAG GGGAAATAATG
84901 TATTGGAACC TTTTTTTTTT TGAAGAAAAA AAAAATAAAC AACTTTTAAA
84951 CTGAGTCTTA TGCTTTTTC CTTTCTTTGC AGCATGCTCT TGATGCTGAC
85001 AATGCGGGAG TCAGTCCAAT AGGAACTCT TCCAACAACA GCAGCCACTG
85051 GGACCTCGGC AGTGCCCTTT TCTTTGCTGG AACTGTCATT ACGACCATAG
85101 GTACCCGTTT GTTTGCTAAT ATCTCTTCCT CTGCAGGTCA TCTTGAGTAA
85151 GGGCGCTTAG TCAGTGTTTT GTCTCATAG CATACTAT AGTTGAGGT
85201 TCAGAGGAGG CTTACGAAAC ACTGTCGTTT AAATTAATGC AGTCATTGTG
85251 GTGGCTTCA ACAAAGCCA AAGCATAATG AAGTATCTCT TTTCCAGAA
85301 TGAAAGGCTA GCAAACCTAA TGAAAGGTT AGAATGGAAA ATATGAGTTG
85351 GTCGGTTGAA CTCGGGTAC TCATTTGAGC TCAACTTCCA TTTTAAAAAT
85401 TGTACTTCTT ATTAAGTTA TATAGTAAGG AACCATAATA TTCTACAAAA
85451 TTTTATATA AAAACAGTAA CATTCTGACC GTCTCACCTT TTCTACCTT
85501 CCCAGAGACT GTTGCTTCA TCTGTTTGA TTGTGATTT TAACACTCAT
85551 CCCCATGTCT TTAAATATCA TGCTTGCTGCT ACTTCTGGAA TTTTCAGTTT
85601 TGGGGATTTT TTTTGACTTT CCATTGTGGA AGATGAGGAG TTAGTTCCTT
85651 CTTCTGCCT GCCTCATCAC AGAAGGGCTC TTTTCTGTC CTCTGTCTT
85701 CCCAATATTT AATTAGATAG AAGTGAAACA TCTGCATGAT TTTGACTAGA
85751 TAAATGCTTT CTGCAGCTGA TCATAGAGTG AACAGTGATG ACCTCTTCC
85801 TGTATCAGTC TTTGTCTTAT TTTTGTATG TGTGTCTTTT TTTTCTGACA
85851 CTTGGTGAGT TTTGTATTTT TGTCTTAGGG GTTAACTTTA TTTATTTATT
85901 TATTTTATTT TATTTTATTT TATTTTATTT TATTTTATTT TTTGAGATGG
85951 AGTTTCACTC TTATCACCCA GGCTGGAGTG CAGTGGTGCA ATCTCGGCTC
86001 ACTGCAACCT CGCCTCACG GGTTCAAGTG ATTCTCTGTC CTCATTCTCC
86051 TGAGTAGCTG GGATTACAGG CGCCACCAC CATGCCATAG TAATTTTGT
86101 ATTTTATAGT GAGATGGGGT TTCACCACAT TGGCCAGGCT GGTCTCAAAC
86151 TCCTGACCTC AGGTGATCTG CCCGCCTCAG CCTCCCAAAG TGTGGGATT
86201 ACCGGCGTGA GCCACCGCAC CTGGCCTAGG GGTTAACTTT ATAAGTATAA
86251 TGGCATATAA TAATTTTAGT GTTCTATTCT TTAACCAGCA TGTATTCTGAT
86301 CCCTATAACG GGTGATGATA TCTCTTTTCT CTCTTTTCC AACACAAAGT
86351 TTTGGTGGAC ATCATCTTTT AAATGATTAA ATTTGCTTAT GTTTCTCTTA
86401 TATGATTTGC CAGCTTTAAA TGATAACTCT TGGCACTCAG CTATTACATA
86451 TAAGGCAGTC AGTGAACTTA GCATCTCAAT TTCCTTTCCC TCTTCCACTA
86501 TCCACTCTTA TTCATGGTGT CATTCTATAT AAGTTGTATC TCACTTTATT
86551 GTGCTTTGCT TTATTGTGCT TTGAAGATGT TGAGTTTTTT TTTTAAAC
86601 TAATTTAAGG TGTATGGCAA TCCCGCATTG AACAAGTCTA TTGGTGCCAT
86651 TTTTCCAACG TCGTGTGCTC CACTCTGTGT CTCTGCCACA TTTTGGTAAT
86701 TTTTCAATA GTTTCAACCT TTTTCATTTT TGATTATATC TGTTAAGGAG
86751 ATCTGTGGTC AGTGATCTTT GATGTCATGA TTGTCTTGT TTTGGGGTGC
86801 CACAAACCAT GCCCTTTGAA GATGGTGAAC CTAATCAATA AATGCCGTGT
86851 GTTCTGACTG TTCCACCAGC TGGCCATTCA GGCATCCCAG ATCCCTGAGG
86901 CACAATGTA TTGAAATTTG GCCAATTAAT AACCTGTCAG TGGCTTCTCA
86951 GTGTTCAAGT GAAAGGAAGA GTCAGTTGCA TGTCTCTCAT TTTAAATGTA

FIGURE 3CC



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

87001 AATCTAGAAA TAATTAAGAT TGGTGAGGAA GGCATTTTGA ACTCTGAAAC
87051 AGGCCAACAG CTAAGTCTCT TCTGCCAAAC AGTTAGCAAA GTTGTGAGTG
87101 CAAAGGAAAT TTTGTGTTTT ATTTTTTTTG AGACAGGATC TCTCTGTGTC
87151 ACCCACGCAG GAGTGCAGTG GTGTGATCAT GGTTCAGTGC AGCCTTGATT
87201 CCTGGGCTCA AGGGATCCTC CCACCTCAGC CCCCTAAGTA GCTCAGACTA
87251 CTAGTGTGCA TCACCATTCC TGGCTAATTT TTTAAACATT TTTTCTAGA
87301 GATGGGGTTT CACTATGTTA CCCAGGCTGG TCTTGAACCT CTGGGCCCAA
87351 GTGATCCACC CACCTTGGCC TCCCAAAGTG CTGGAATTAC AGGCAATGAGC
87401 CACTGTTCCCT GGCCAGGAAA AATTCCTGAA AGAAATTAAA AGTGATACTC
87451 CAGTGAGTGA GCACATGAAT GATAAGAAAG TGAACCAGCC TTATTGCTGA
87501 TATGGAGAAA ATTGTAGTGG TCTGGATAGA AGATCAAACC AGCCACAACA
87551 TTCCCTTAAG CCAAAATCTA ATTCAGAGCA AGCGGGCTCT TTTCAGTTCT
87601 ATAAAGGCTA AGAGAGGTAA GGAGGCTTCA GAAGAAAAGT TTGAAGCTAG
87651 CAGAGGTTGG TTTATGACAT TTAAGGTAAG AAGACCTTTT GATAACATAA
87701 AAGTGGCAGT TAAAGTGCCA AGTGCTAGTG GAGAAGCTAC AGCAAATTAT
87751 CCAGAAGGTC TAGCTAAGAA AGTGGCTACA CTAAACAACA GATTTTCATT
87801 ATAGACAAAA CAGCCTTATA TTACAAGGTG CCGTCTAGGA CTTCCATAGT
87851 TACAGAAGAG AAGTCAATGC CTGGCTTCAA AGCTTCAAAT GATAGGCTGA
87901 CTCTTTTGTG AGGGGCTATG CAGCTGGTGA CTTTATGTTG AAGCCAGTGC
87951 TCGTTTACCA TCCAGAAAAT CCTAAGGCCC TTAAGGATTC TGCTTGCCCT
88001 TCTATTAAAT GGGAACTTCA AAAGCCTGGA TGACAGCACA TCTGTTTACA
88051 GCATGGTTTA CTGAAGAGTT TAACCTCACT GTTGAGATCT ACTACTCAGA
88101 AAAAAGATTC CTTTCAAAAT AGTTCTGTTC ACTGACAATG CACCTAGTCA
88151 CCCGAGAGCT CTGATGGAAA GGTGCAAGGA GATAAATGTT GTTTTCATGC
88201 TTGCTAATAC TACATCCATT CTTCAGCCCA TGGATGGAGT AATTTTGACT
88251 TTGAACCTT ATTATTAAAG AAATACATTT CATAAGGCTG TAGCTGCCAT
88301 ACATAATGAT TCCTCTGATG AGTCTGAGCA AAGTGATTTG AACATCTTCT
88351 GGAAAGGAGT CATCATGTGA GATGCCATTA AGAACATTTG TGATGAATTG
88401 GAAGAGGTCA AAATACCAAC ATTAACAAGA GTTTGGAAGA AGTTGATTCC
88451 AAGGCTCATG GATGACTTTG AGAGGTTCAA GACTTCACTA GAGGATGCCA
88501 CTGCTGATGT GTTGGAATTA GAAGTAGAGT GTGAAGATGT GACTGAAATG
88551 CTGCATCTCA TGATAAAACT TGAATGAATT AGGAGCTTCT TCTTATGGAT
88601 GAACAAAGAA AGTGATTTCT TGAGATGGAA TCTGCTCCTG CCTGGTAAAG
88651 ATGCTGTGAA CATTGTTGAA ATGACAACAA AGAATTCAGA ATATTATATC
88701 AACTTAGTTG ATAAAGCAGT GGCAGGGTTT GAGAAGATTG ATTCCAATTT
88751 GAAAAAAGTT CTACTGTAGG TAAAATGCTA TCTAACAGCA TTGCATGTTA
88801 CAGAGAAATT GTGAAAGGAA GAGTCAATGG ATGTGGCCAA CTTCTTTGTT
88851 GTCTTATTTC AAGAAATGTG CACAGCCACC CCAGCCTTCA ACAGTCACCG
88901 CCCTGATCAG TCAGTAGTCA TCAACATCAA AGGAAGACCC TCCGCCAGCG
88951 AAAGCATTAT GACTTGTGTA AAATCAGAT TATTATTAGA ATTTTGGTA
89001 ATAAAGTATT TTCAAGTTAA GGAGTATATA TACATTTTTT AGACCTAATG
89051 CTATTGTACA CTCAATAGAC TGTAGTAGAG TGTAACATA ACTTTTATAT
89101 GCACTGGGAA ACAAAAAAGA AAATGTGTGA CTCATTTTAT TGTGGTGGTC
89151 TGAAGTCTAA CTCACAATGT CTCTGACGTA TGCCTGTATA ACCTCAGGGT
89201 ATGTAATTTA GATTTTAAAT TGTTACCCTG ATATTTGCAT TTGTTTtagt
89251 CGTAGCTCTA TAGTTAGATA TCATTAATGT TCATCTCTAG TCCTTTTGCT
89301 GTGGTTTATC TCATGATCAC TTACTTGGCT GAAAGTCATC TTCAAGTAGT
89351 TGCCTTAAGA ATGGCTCAGG GGAGCAATAT TCTGTGAGAT CTTGCATTGT
89401 TCACAGTTGT AGCTTAACAT TTGAAGGATA GTTGAAACAA AATGAAATCC
89451 ATTTTATTGA CTCACATTTT CTTTTTCTTT TTTTTTTTGA GACTGGGTCT
89501 TGCTCTGTTG TCCAGGCTGG AGTACAGTGG TATGAACATA GCTCACTGCA
89551 GTCTCCAACT CCTGGGCCCA AGTGATCTTT TGGCTTCAGC CTCCTGAGTA
89601 GCTGGGACTA CAGGCGCATA CCACCAGGGC TAGCTAATTT TTAAATATT
89651 TTGTAGAAGC CAGGCTTGC TGTGTTGCC AGACTGGTCT CAGACTCCTG
89701 GCCTCAAAGG ATCCTCCTAC CTTGGCCTCC CAGAGTGCTA GGATTACATG
89751 TGTGAGCCAC CACGCCCTGG TTTACATTTT CTTTTTAACT GGTCTCACAG
89801 GTGTTGCTCT TCTGTTTCCC AGTTTTTATG CAGCTGTTGG GGGAAACCTG
89851 ATGCCAGCCT TTTTTTCCCC ACTTTTATAG GTGACTTTAT CTTTTTGTTC
89901 AGTGACTTAA AATATTATTT CTCTTTCATC TGATAACATT ACTAGGTTTT
89951 GACTCTTTTA TTGCATTAAA GTTTTCTTGA TTGACATCTT TAAACATTTT

FIGURE 3DD

MAY 02 2003

PATENT & TRADEMARK OFFICE

Docket No.: CL000858

Serial No.: 09/729,920

Inventors: GUEGLER et al.

Title: ISOLATED HUMAN TRANSPORTER...

90001 CTTTGCTGTG TGGTTTTGGT TTTGTTCTTT GGGAGATTAC AGCTATACAT
90051 ATATTGTAAC TTCTTTGCTC ATCTTCTATG TCTCTCATTT CTCTTCTACT
90101 TTTTAACCTCT TAAATCTAG TTTTCATTTT GTTAATTTTA TTCTCCCTAT
90151 TCCTTTAGTT TGTATGTTTT CCACAATGCC TGTGCTGCCA TGAGCTCCTT
90201 CCAATTTTAT TTTTTGTTTT TGTGATCAAT AGGGAATTTT TTCCTTTTCC
90251 TGTTTCTTTC CTGAATTTCA TAGCTCACAT TTCATCTTCA CTTGTTGTTC
90301 CATTTTTCCA CTGATTTCTT GAATTTCTAC TTTTGGCTT CTCTGTGAAG
90351 ATTCTTAGAG ATGATTATTT CATACTGGT CACAATTTT GTCTGATTTT
90401 GGAAACATTT TTCTGGTGAG CCTCTTTCCA TCCATTGGTA AGTTTGTCTA
90451 CTCTTTTCAC ATTTTTTTTC TTATGGAAGT TTTATATTTA TGCTGGGTCA
90501 ACTTCTTTTT AAAATACCTG GCCCCAGGCA AACTGGATAT TCCTGGACCA
90551 GCTTCTGCC AAATGATTTT ATGGAGTTGG GGAGAGGAGA GCAGGGTGAG
90601 TCAGGGTACC ACCTTCCAGA CAGCACATCC TAACTCTCTT CATTTCTGTG
90651 ACAGAGTGT TCTGCAATA GGGTCCTTCT GTATTATTTT TGTCTACCT
90701 CCCTGTTTTT TGAACCAGAT CAAGTTCAGG GTGGCTTCTG CTGCTCTCCC
90751 TCTTTATCCT ATGTTTTCATG CTTGGTAAAA ACAGGGACAT CTCTTTTGAA
90801 GTTCAGAGTG AGACCCTCCC CTTTATACTT GGATATTTTC GGATACTTTC
90851 TGAAATTTAC CACTTTAGGG CCCTGTATC ATTTTCTGAG CTTCTTCTTT
90901 TTATTTTTTG TTCATATGGC TTCTGTCCAA TCTCCGCTTC TTTTGGTAGT
90951 TCTTACACAT ATGCTGGAAT CTCTGGATTA TATCCTTCTT CCAGCTCTGC
91001 TGAAAATGAG TTTGAGGATT TTCTGCCAC ATACAATTGT GAAGTAGCAC
91051 TGCAACAAAA ATCTTCATTC AGAAGCAGGA GAGACACCCA GCAGTCACTG
91101 GTCCACAGCA ATGAGGGACA GGCATTGAGA GGCTCCCCCG CCCTCCTGGT
91151 GGGGGAATTT CTTTCATTCA AACTTGTTTA TACTCTCTAG GAGGAACTCC
91201 CTGCCCTTATT GCTCTCTGAA GCCCAGCTAT GCCTTTTGAG AGGTCTCTTC
91251 CTCTGAGGCA CAGTTTTGAC AATCAACTTC CTATAGGCGC AAATTTCAGA
91301 GGCTAACGAT TGGTTTTAGCG GCACAGGTTT TTGCTTTTGT TTTAAGATCT
91351 AGCCTTCAGG ACCTATGTTG TTTCTAGGTG AAATCCAGAA AGTCATATGC
91401 AACAAGACA TTTTGGATGA AGGAAAATTG CCATTGTTAT TTAGAAACAC
91451 TCTTAATCTA ATTATATGAC ATGCTAGGTT TACACTTGCA AATCTGCAAA
91501 TATATTGGTG TTAGCTATTA AAAGTATTC AGATGCCCAT GACACCAGTG
91551 GGTCTGGGCG TTAGAAGCCT TTTCTGGCAC TCTAGGCCAG GTTAGGTCAG
91601 CTTAATCCAC AGACTCACAG CGTCCAACAA AGGAAGCTGG GTGGCCTGAC
91651 ACCATTAGT ATACGGGCAA AAAGTGTTAG CAACCTGAAC AACACCAGAG
91701 GGCGTTGCTG TAGTGGATCC AAGAAGACCA ATGTCAGGTT TCATTGTGTT
91751 CAGCAGATTG TTAACCTGGG AAAAAGTGTC ACGCATTGTA GGAGGATCTA
91801 TTGTACACCA ATTAATAATTG AGAAAGTCTG GGCCACTTCA AGAAGTACAT
91851 TTTGGAAAAT GCTCTCTGAT ACCCGGTATT GGATTCATGA GACATTAGTG
91901 TGTATATTGA AGGAAACTCC TAATTTTCTT GTTTCATGAC ATGGCTAAAT
91951 GAATGATCTG TCTGCTGCAT TGAAAAACAC TATGGCTACA TTGGAAGGTG
92001 CATTAATGGT ATTTATTGTG TTAGCTTGT AGGAATCCAG GAACTTGGTT
92051 TATTGAACAA CTATTGTTAT TGATCCACAT AATATTATGT GACTGAGGAA
92101 TGGTGGCTCC ATCTGCCTAA TGAAGAACGT TTGATATGCG ATGGTTTTTG
92151 CCCTTTTTTG TGTGTGTGCT TACACCGGAA TCTTTGAGTT TGAGCAAATG
92201 GCTCTTAGCC CTTGGATTCT GTTGCCTGGA TTCCATTAC TTACTCACCC
92251 ATGTCCTCAT TGTCATATCC CCAGTGGTTC CCTTCCCCAT GCTTTGTCCC
92301 CAGGCCCTAG GTGAACAATC ACCTTGCTA GACTAAGAAA TCCAGTGCTT
92351 GGCCACAATT ATTAGTTCAA AGATGGACAT ATGATCTGGA TTAGGGGCTT
92401 TTGCCGGAGC TTTGGAGGAA ATGACCTCTC TTTCTTACTA AAGGTAAGTC
92451 TGGAAGAGAG CAGGCCTAAG GCACTGCCAG TCATTTTTTT CCCCTTGGGT
92501 TGTTCTGCCT AGAATTCATC AAACACTAAA GAAGCAGAGT GAAGAAAAGG
92551 AGTGGTGAAT GGGGTCTTGT TTACATCATT TGAGCTCTGG ATGGTGCTAC
92601 CCAGGAAGTG TTAAGAAATA AATGTTAAAC CCCCTTCTAT TTACTGGGGT
92651 CAATATATTT TCTTTCGTTG TTTAAGCGAG TGTGCGTTAG GCTTCTATT
92701 ACCTGCAAGT GAGAACATCC CAATACATGC TTTGGGTCAG AGCTCATGCA
92751 GGGCCAGTGA ATATCCTCTG ACCTCCACAG CTAGTGACTG AGCCTGCTGG
92801 CTGCTGCAGC TGCCATCTGT CATCATCTTT GAGCCACTGA CTCTTGATTT
92851 AAAGTCTTAG GCAGAGCCAT CCTATTGTG CATGTGCACA CATCCTGGCT
92901 GCCTAGGAGC TGTTTCTCTT GTGGTGGGAG GCAGGACACT GTGTCATACC
92951 AATTATGCAC AGGAAGGGGG GCTTCCCAA AAATCAGAAG GAAGGTGGAT

FIGURE 3EE



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

93001 GCTGAACAGG AAACACTGTC AAAACAAATG TGCATCAAAA CCAAAAGTAA
93051 AATGCAAAGT CCACCTCAGT ATCATTGTAC AGTGTTAACA CTAGAGATAG
93101 GGTCTTTGTT CTATTTAATT TAGAAAACAC AATTTTCTCT CTCACCTTTT
93151 CTTTCTTTTA ATTGAAAAAT AATGTATTGT AAGTTGAGCA CCATTTAGCT
93201 GGCTAAATTT TAACTCCAGA GTGGAGGATC TTTATAGAGT CATACAGTTA
93251 GAGAATTCCA AAGAAGCCCT TAATACAATG TAAGTAAGAA TAATGAGGTG
93301 CAGAAATAAT TGTTTTTCCA GTTACTTAGT GGTA AATTCA TTTGTTGCAT
93351 GTGGTCGCAA GGTTTATAAG AAAACTCAGA GCCCAGCAAT TCTTCCAGTT
93401 CTTCTGAGC AATTTTCCAC TAGTTAGGAG TCAGGAAAGA GGAACCGTGA
93451 GAGCTGAGGA GCTGTGTATT TCATTAATTG TGAAATACAC AAATATTGGC
93501 CTGTTTCCTT GCGATCATAA AATTTGCAAC GTAATATTGC AGACATTTTT
93551 GCATATTACT AAAGTTCTTT GAAAAGTGTA TTCTTTGATG GTTTCTATTG
93601 GATCCACTAT TCACACTATA ATCACATATT CCTGGGAACT TAAGCTGTTT
93651 CTATTTTAGT AATAGTGTA CACCATGGTG TTAACGTTGT GAAGTGTGGT
93701 CTTCTCTCT GTTGTGTC TGGGAAAGGT TACCAAGGGT TTGCTCTGTC
93751 AAAGGAAATG AAAGGCTTGC CAAATTTCTT TCCAGAAAGG CTCTCATGAG
93801 CAGCTTAAGG TTATGTACTT TTCAGACATA AAAAATGTGT TTATTAGGTA
93851 GAATGTGTAT AGACACACTT TGTGAATAAT AGAATCTTTT CTGAAAAGCA
93901 GCGCTACTCC TTAGTATCAG AGATCCCTTT TATCTGAGGA TATCAAAGCA
93951 CTTCTTTTTG AAGAAGGTTT TTCTTGTGCT GAGATATATG GAAAGATTTA
94001 CAAGTGTATA GCAAACGGAA TACCTTCAGG CACTTCTCCA GACCAGTAGC
94051 CACGCCAGAA GGAAGAGCAG ACTCTGCTCT GTCAATGACA GGGCTGCACT
94101 GCACCCTAGT CCCTTTCTCA GTAACATAAT CAACGTGAGA AAGTCCCACC
94151 TGCCTTTGAT TATTGGCTCA GCTGGTGGGT CCCCCGTAAC TAGCTTTTCT
94201 AAGCTGGATG AATGATGCTC ACTTCTATGT GCAGATGCTT TTTCACAAGC
94251 TGTCATTTGT AGAAGGACAG CGAGCGATCA GGTTCTTACC AATATCTGTG
94301 AAATGCGATT AGATTTTAGT CTGTGAGGCA TTTTCAGATT GAGCCACCTG
94351 ACTCTGCCCA CATCAGAGAG AGAGCCTCTG GTCAGGACCA GGTGGTAGCC
94401 AGTCACTGTG TCACTAGCCT GGCAGCCTCA TTTAAGGGTT GTCCCTATCA
94451 AACTATCGAG GCACCTGTTG GTACTTACCC AGCACTGGAT TGGATGTTTA
94501 TTTTTTATTT TTATTTTAT TTTTATTAG AGAAGGGGTA TTGCTTTGTT
94551 GCCTGGGCTG GAGTGCAGTG GTGTGATCAT AGCTTACTGT AACCTCAAAC
94601 TCCTAGCTCA AATGGTCCTC GCGCCTCAGC CAACCAAGTA GCTGGAACCTA
94651 TAGTTGTGCA CCACCATGCC GGGCTAATTA AAAAATTTTT TTTTTGTAG
94701 AGACAAGGGC TCACAATATT GTTCAGGCTG GTCTCAAATT CCTGGCCTCA
94751 AGTGATCCTC CCACCTTGGC CTCCCAAAGT GCTGAGATTA TGAGTGTGAG
94801 CCCCCTTGA TTTAGATGGG ATGTTTAAAC TGTGCCTTTG AAAAGAGCAA
94851 TCACCGTGCC TAACATTAC TGAGTTCTTA CTAGTTAACG TGCATTGTGC
94901 TCCACATACA TTATCTCATT TAATCCTGCA TAACCACATG AGGTGGGTAC
94951 TGTTATTAGC CTCATTTTAT CTATGAGAAG ACTGAGGCC AGAGAAGTTA
95001 AATAACTTGC CCGGTATTTC ATAGTTAGTA AGCAGTGGAG TCCAGCTAGA
95051 TTCACCAGGA CCAGCTACAT AATTTGTGGC ACCCAGTACA AATTGAAGTG
95101 GGGTCCCTTA GAGCATTAAC CCAAGCACAG GACCCATCTA AGCGTGGGCC
95151 CTGTGGGACT GCACAGGGTG CACATCCATA AAGCAGCCCT GCCTGCGCAG
95201 ACAGACTGGT GACCATAATA AGAAAGCACA CTCTCAACTA AACAAGTAGG
95251 GCTGCACAAC ACACAGTTGG GCCAAGATTT GACTTTGGCA CGTAAACAGC
95301 AAATGGAAGC CTTTGTGTGC ACTCCTCAGG CACAAGTCCT CTTTAAATGC
95351 CAGCTTTCTC TTCCTGAAAA ACGGGGAAC CTTTTCTAGC CAGAGGTGAA
95401 CAGATCTGAG CTCATCTGG TGCTGTGCGT TCATTACAGC CTCCCTTGG
95451 CTGTTTGGCC TTGTGGAGTT GGTTGTCTTC TGCTGAAAGT CACCACCTGA
95501 TGCTGTGGGT GCTATGGGAG AACAGTGAAG TTTCTGGAGG GAAGATAGGA
95551 ATCAACCGCC TGTTTTCTCC TGGGACTGAG TTTTCTGGGA GACATATTGC
95601 TCAGAAACAA TTCCTTCCCA CAGTAAAGCA CAAGGCAAAC GGGGTGCTTA
95651 GTTTGCATCA TATTTACAG GTATTTAATC TTCACATGTA ACTCTTGCTT
95701 TGATGTAAC TATTTAATC TTTAATAGCT ATGGGTAGGC ACTTTAATAG
95751 CCTTGTCTTT TGATGAAGAA AGTGAGGGAG AGAGATTAAG AATGTGCCCTA
95801 TGACCTGAGA GTTGGTAAAT AGAAGAATCA GAACAGAAAT CTGTGTAGTC
95851 TCTAGTTCTA GAGCCTACAG ACAACTGTCA CACCTTACTT CAAAGTTCTA
95901 CCCAAGCATT CTAGAAGGAT GAGCAGGGCA GTCAGAGAGG CGGGGTGTAA
95951 CTAGATCCCC AAATCCAGAA ATGTGGTCTT CCCATTGCCT CAGAGCAAAG

FIGURE 3FF



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Title: ISOLATED HUMAN TRANSPORTER...

96001	CTCCAAAGTG	TAAGTGCTGG	AATTTTCCCA	GAGTGACAGT	GTTGAGGGTC
96051	AAACAGTCTC	TCCTTATAGT	TCACCAAAGG	CATGGAGCAC	AAATACACTC
96101	ACACACACGC	CCATGCATGA	GATACAGCAT	CACTCAAGAA	TGATGACTTT
96151	CTGTCCACTG	GGCAGTGTGT	CACCAAAGAA	AGATGGCTGT	GAATATATTT
96201	AAAGGCTTGT	TTGAGTATTG	CATCACTCAT	GCTCTTACCC	AAGAACTTAG
96251	CTTTAATATT	ATTTTTGTGT	TCTAGTCAAC	AAAACACTGA	ACAAATAAGG
96301	AACCAATTGT	GATAATAATA	ATAATAATAC	TTTGCAATTG	TACAGTACTT
96351	TACAGTCCAT	TGATTTTTTC	CCCCCTGCAT	TTTCCTTGAG	TACCTCTGAC
96401	ACTAGGATTT	GCAGATGTTA	AGTGGGTCTA	AGGAGAACTA	GGTAGTGTGA
96451	GGTGGAATTT	GATCCAGATC	TTTCATCTCC	TCACTTCTCC	CTGATGCTCC
96501	ATGGTAAGCC	ACAGTGCCTT	ACCCAGGAGG	TGGGTGGGGG	TGGTCATCTC
96551	TGAAAGCTGG	AGGAAGGGGG	TGTAGCACTT	GTCAGGATTA	ATGAGATGCC
96601	TGTTTCATCCA	GTTCCAAGCC	TCCACTTGTT	TGCCTATGTC	TGCAATATAT
96651	TTCTTTCTGA	GACACTTGGA	CAACCTATAT	TCCCCAAAGT	TAGGCTATTG
96701	TGAGAGCTTC	AAGCTGGGGT	CTTCAGTGTT	TTCACAAGTT	ACTTGAATGT
96751	TTCCAAGAGT	CACCATAAAC	CTGCATAAAG	TGAAACTGTA	GAGGCTCATT
96801	TATTTCCTTT	TCAATAGGGC	TAGCTTAATG	TCAGCTCGAC	CATTCTAGAG
96851	GGGTATTCTT	GGAAAAATGA	TTTTGTCCAA	GTTCCCTGAAA	GTACCTGAAA
96901	AAAGTTCTGA	GAGCTTTTTT	GCATATTTAA	ATCAAAATCC	TGGTGAGTAA
96951	AGGAAATACA	AGATGAGGAA	GCCTAGCCTG	AACACTCATT	TTAGAAATGG
97001	AAGCTGTAAT	TTAGATTATT	ATAAGAGGTT	TGAATGATTG	AGAACAGAAG
97051	ATTGCAAAAG	AAAGTATCCA	GGTGACTCAT	TCCCCGAAGG	AGAAGGCAAC
97101	CGTGAGTTCT	GCAGGCCCTG	GGGTGGCTGA	ATGATGGACT	AACCATCAAC
97151	GTTTTTTTAT	CATGTTGCAT	TCCCAACCTG	TCAATAACCA	TGGACCCAAT
97201	AACTCACTCA	TTGAATAGAT	TCAGAAACAG	GCCCCACATG	ATTTACCCAG
97251	ATTTGGGAGA	ATGGTTAGAT	TACTGTCTAG	ATACTTTTTA	ACATAAGATT
97301	GTAATATCAA	TTGGCACAAA	AATGAATATT	AATTAATTTA	GACTTTCATC
97351	TCCATATAAA	GTGTGCTAAT	GCTATAGGAC	TTTTTCTTCC	AGCAATACTT
97401	TCTTTAGCCT	CATCCATATA	GGGTAAGCCC	AGTACTCATT	GTACATAAAT
97451	TACTTATGTA	ATGGCAGTAC	TCTTAAGATT	GCAGATGCGG	GTATTTTCAA
97501	AGCACTATTT	GAAATACATA	TTAGTAGACC	TGACTATAAA	AAGATTCTCT
97551	TGTATTCAAA	CATCCATCAA	TAAACTTTTA	GCATCTTATT	ACCCTCAATG
97601	CAAGAGGTAG	TTGGGTGGAG	AGGTAGGACT	CAGAGATGAT	GTGGAGTTCC
97651	CAGTAAAGAG	AAAAAAGAG	CCAGATGGGG	CGAAACTTCA	CTGGCGGTGG
97701	GGAGAGACAG	CACAAAGCCT	TCCCTTCCCT	ATTCTTTTCT	GTTTTTAGAC
97751	TTCCCAGGGT	AAGGCTGTAC	AATTCATGAG	TCCTTTCTAA	CCTTGTTACTA
97801	GACCACATTT	CCTCTTTAAT	ATGGGGTACC	CATTACCTTT	CAAGACAGCC
97851	ACAGTCGGTC	CAGGTGGAGC	CCATGGGTAA	GACTGTGAAA	AAGAAGCTCT
97901	TGTCAAATCT	AATAAGTGCA	GTGGTGATTC	CTTCCCACGC	ATTCAGGTCT
97951	CGCTAAACTA	GACATGCCCA	TGATGCTTGG	TGTTTCAGAA	AAAGGTGGTA
98001	TCACTTTTTG	TCAGAAATGA	AAATGAAAGT	TCTGAGTGAC	CATGAATTTT
98051	CTAAAATGTG	TTAATATCCA	AGAAACCTTA	AAACCGTTTA	TAAGGGGAGA
98101	AGGAAGAGAA	GCAATGGAAC	AATGTTGCGA	ATTGTAGAGG	GCCTTTGAAA
98151	TGAAGTTCTA	CTCCCTAAAG	CTCATAAGGT	GGGGGAATGT	ACAACTTTT
98201	AAAAAAGTCT	GTGAGTTCTT	TGGTCAGTAT	GCTAATTTCT	CTGCCACTCT
98251	CCCTCTTTTT	CATATTTCTC	ACCAGGGTAT	GGGAATATTG	CTCCGAGCAC
98301	TGAAGGAGGC	AAAATCTTTT	GTATTTTATA	TGCCATCTTT	GGAATTCAC
98351	TCTTTGGTTT	CTTATTGGCT	GGAATTGGAG	ACCAACTTGG	AACCATCTTT
98401	GGGAAAAGCA	TTGCAAGAGT	GGAGAAGGTG	TTTCGAGTGA	GTACTGTGTC
98451	ATATTTTAAAT	TCTAACCACT	GCGATCCAAT	TGGCTTTAGC	CTGACAGGAT
98501	CCAGGAGGCA	GTATCAGGGG	CATTGTCTGC	TTTTTAATGGA	ATAATTTTAA
98551	TGTTATGATT	GTATTTTCTT	GTTTTGGCCA	ATGGAAGTCA	AACATCTTGC
98601	ACCTAACTC	CCTTCTTTGA	GTAGCTTCCT	ATTTTAGAGT	GATATTTCTG
98651	CAATCACAAAC	ACAAGAGGGT	TAAGTATGGA	TTTGCCAACA	CAGATTTTTT
98701	GAAGAGGTGA	GACAAGTTCA	GTTTCTCCTT	CAAGATGGAA	GATGGGGTTC
98751	CTCATTGTGT	TTGTAATGAT	GTAGAAAAC	GTAAATCCAT	CCATTTTGTT
98801	GTTGGAATC	CCTTACTCCG	TTTTATTTTC	AAGCACAGTG	TCTTCAGGCT
98851	AATCCTGCTT	CTTCCAGAAG	CCTGACTTCT	CCAGACACTG	CTCTGTGCTT
98901	TGCACCTGTC	TCCTAATGGT	CTCTCTCTCT	CCCATCTCTC	ACTGCTGAGT
98951	GCTCCCTCAG	AAATGGCATC	CTGATGTACT	ACTTCTTACT	GAAGTGTGA

FIGURE 3GG



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

99001 TGATTGCTAT TGCCTTAGTG GGTTTTTTCC TTTCTGGAAT ATTTATCTTT
99051 AAACAAGAGA CAACTATCTC AACTCAAGGA ATTTATTTAC TAAAATTAAA
99101 ATTAATTAAT AAATTATTCC TGGCATTAGT TGCAGGCATG AGTGGCTGAG
99151 TGATTAAACC GGGGTTCCCA ATGCCCTTTA ACTCGCACTC ATTTGTATGC
99201 TTTACAGAA CACCTGTTTT GCTCAGATGT AAGGTCACTT CTGCCCTCTT
99251 ACTCACGCT GACCTAATTC TCAAGTCTTT CAAACCTTCC TCAGGGAATG
99301 CTTTCTTATG ATGACTTAAT ATTTACAAAT GACATTCTGA GGTCTTTTCC
99351 AGGATCTAGG AATGGTGGCC AAAGGCAGAT CAGCTGGAAG CTCTAAAGCT
99401 GTGCTTTTTT CCCCCTCTAA GAACTCTTAA ACTTTGAGTT CAAGGCTGTC
99451 TCTGCAATAA TGGCTCATAC TTCTCTTTAG AAGAATGCAA GGGAGCTTTC
99501 AGATGAGCAG TTTTCAGAGG TTTTTAAAAA GAGTAGAATG GGAGGAACGA
99551 GGCACCATAG CTGGGTGAGC CATTTTATAA TCTCACTGAT CCTGGGTCAG
99601 CTGCCTCAGT TTAATCATCC ACAAAGGGG ATAGAAATTTG AATCTACTTT
99651 GTCAGGTTTT GGTGATGATT AAATGAAATG ATGTGTGGAA AAGAGCTTGT
99701 CATATAGGCG AGACATATAG AGCCGAGGCG TTCTGTGTTT CTCTCCAAGA
99751 GAAGCCCTCA TGGGCAGGCT AGCCACTCAT CCGGGTTTCA TCTGAGGAGC
99801 TCTGTGGTGT GTGAGTTTTA CTGGAATGTC CCACAGCCTT TGCTCCTTCA
99851 TGCTGGCTGG CCGGTGGCCT CATTAGACTG TGCACCTGGG CTCCCAGTA
99901 GTCTCCATGG AAACCATCAG TGCTCAGCTT CCCTGCTTTT CAGATGTTTA
99951 GTTCTTCCCTA AACCAGACAT AGCAGCCCTG TCTCCAAGAA CTCTTTTGAA
100001 CTTCTTGGA GACCCCTTTT AGCTGCTGCC TCATGGCCCT CTGACTTAGA
100051 GAAAAAAGAA TCTGGTAGTT TGAACACTCA GAACAGGATT CAATTGGGGA
100101 AATGACTGAT CTGGCATTTT TATTTTATG TAGCTTCTTT AGAGCTCAGT
100151 TTCCTTATTT GTAGAAGAAA GGATTGGACT AAAAGTTTTT GAAATCCTCC
100201 TTAGCAGAAA AAATTCTAGT TACTATATTT GAAGTGATGG AAGAGGTTGC
100251 AATCATCTGG ACATCTGCTA CTAAATTTAG GGACTTAGTC TCCCCTAATG
100301 AATTTCCGAC TACAAATAGA GTATATGGTT CTCCTTCCCC TTGAAGCTGC
100351 GTCTCAAATG GACCATCAAC AGATTCTGAT ACAGAGCCTT AGAAACCTTT
100401 ATGCTGATTG TCCACTCAGC TCCTTGACAGC GCCATCAAAG ATCAAGATTC
100451 TTTTAGGAAG GCGAGACAGT TGCATATTAT TGAATTGGCA GTGCACAATG
100501 AATGCATTG CTGAGTATTG GAGGGTGCTA TTGGAAGGG TGACCGAATT
100551 CCAGGGGAAA TGTAAGCACA CTTCCCTAAAT ATACGAACAA CTGATCCTGC
100601 AGCAGTTTGC TTGCTGCATG TAAAGTTTTG GTAGAAAATC TCAGTTTTCT
100651 GCCATTGATT TAACTACAT TTAAGTCC AATTACGTTT AGGTGGTTAT
100701 TTGAGAAATG AAAATTGTAT AAGCTAACAA AGCTTGGGGT TGTGAATTTT
100751 TAGTTCTCAT GGGGGAAGGT TTATGTATTT CTTCTGCTCA ATGAGTGTTA
100801 AGCCCTTCTC TTGATCTGTT ATGTTTTCTC TCAGCTCTTG GGAAGAGAGG
100851 ATTTACGGTG GAGTAAAAAT AAAATCTAAA GTTGGCTTTC TGCCGGGCAT
100901 GGTGGCTCAC ACCTGTAATC CTAGCAGTTT GGGAGGCTGA GGTGGGTGGA
100951 TCACCTGAGG TCAGAAGTTC AAGACCATCC TGGCCAAGAT GGTGAAACCC
101001 TGCTCACTACT AAAAATACAA AAATTTCAG GGCACGGTGG TGCATGCCCTG
101051 TAATCCAGC TACTTGGGAG GCGGAGCAT TAGAATTGCT TGAACCCAGG
101101 AGGTGGAGGT TGCAGTGAGT TGAGATCGTG CCACTGCACT CCAACCTGGG
101151 TGACAGGGTG AGCCCTGTG TTAATCAATC AATCAATAAA TAAAGTAAAT
101201 ATAAAGTTGG TCTTCAAGAT GCCTGAATCC TGAGGTGACC CTGTTTTGGG
101251 TCCTTCCAAC ACATCCCAGG TCTGATCCTC ATTTTAAAGA ATTGCTGAGG
101301 GATATTGGAT TACTTAGAAA TGCTTTTGGT TGCAGAATAA TAAATGCCT
101351 GACTATTGGA GATTTTATGA CATGAATAAA TAAGAATTCT TCTCCTCTGG
101401 AGTTCAGAAC TAACTGTGAA ATGGAGGAGT CAGATGGAGA TCAAATTGCC
101451 AGCTTTTATTG CTTATAAGCT GATCAGAGAA TATAGCTTTA GCTTTGTTTC
101501 CGAAAGGGCT TACAGTCACT TTACCCTGAA TTAGGACCTT GCTGCTGCAT
101551 TAGTTTTTCT ATTGCTGTGT AACATATGAC TACAATCATA GAAGCTTAAA
101601 ACAACACTTT TAAATGGCCT TCTTGACCA CCACTTAAAA TGTTTAATTT
101651 TGCTCTCAGA TGATGTTTCA AAACAAAGGA AAGGTAAAAG TAAAGGTGCC
101701 AAATTATTTG CAGATGTGCA TAACCAAACC CAAATGAAAC TAAATAAGA
101751 ATGCTCACAA TTTTCTTTTT TTTTTTTTTT AAGTGGAGAT GGGATTTTCA
101801 TGTGTTGGCA AGGCTAGTCT GGAACCTCTG GCCTCAGGTG ATCTGCCCTC
101851 CTTGGCTTCC CAGAGTGCTG GGATTACAGG CGTGAGCCAC CACGCCAGC
101901 CACACACATT TTTTAAAGCC GGGTGTACAG ACCAAATAAC ATATTAAACT
101951 AGATGTAAG AAAGAACCA AAGTGAATTC ACCAGAAAAG ACATGCCACT

FIGURE 3HH



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

102001 AAGACAGAAT GTAAATTCTG TAGAAACCAG AGTACTCAAT GCAGAAGGAT
102051 ACTTTTCTAC CAGAAAGTGC TTGCCAACAA ACAAACAAAC AAAAACGCCT
102101 TTTACAGACC CAAGAGGGAT GCAAAGTTCT TTACTTAAGG CACCTTTTAG
102151 CCAAATCAAA TCACATATAA AGTCAAAAAG AACTCGCCAA AGGGAGGGAG
102201 TCTGAGAATC TGAGAGGAGA GTCACCAGA CAGAAGAGGC AACAGACAGA
102251 AGCAGAGAGC AGAAAGGGCT CAGTCAGTAC TGCCTCAGT TCCAGGGACC
102301 TCTCATTCTT CTGAGGTGCA CTCACCTTGA TCCCACTTCT GACACCATT
102351 ATGTACCCCT AAATAACATA CAGACAGAGG CTCATTGAAA GAAAATGATA
102401 TTTACTCAGG GATGGGCATT GCAGTGGTAA CATACATGCC AGTTTAAACT
102451 ATGTGTGCAT TCAGGGAGGT AAAGCAAAAA AAAAAAAAAA AGGTTTTTAA
102501 AGGAAAAATG AACAGGATTA CATAATTGTT TTGAGCTAAT TATCCTTGAA
102551 TACAAGGATC AATAACAAGG GTGATGCCAG TCCAAGGTTG GACAGTCAGT
102601 TGCTGGGTAG ATGCTCTCGC AGAAATGCTT TTCTGCATAA CGAGGTGATG
102651 GGTTTTGTGC AAGTTGTAG TTTTGTGAGT CTTTATGAT AGCTCTTGTA
102701 ATCAGGCATT TGTGCATGAG AATCCTTCTT TCCTGGCTTT CCCTGACTCT
102751 GTTTGTGAGA GTTTTAAAGCA CAAGTAACCC CATTTTGATT CTGACAATTT
102801 TCATGCTCCC AACACTCATT AACAATGGGT TAAGAATTTG AACCTTATC
102851 TCACATAGCA AGAAGCCTGG AGGTACGTTG ACTCAGGCTT GTGCTATCAG
102901 CTCCACAATG TCAGGTGTAT CCAGATTGT TACCTCTTTC TGCTCTGTTT
102951 TCCTTGGCAT GGTAGCTCTT CATCCTCAGA CTTGTCACTC ACATTGCAAG
103001 ATGGCTGCTT TAGCACAAA TAGCAGTTT TCACCAACC TCATATCAGG
103051 AAATACAAAA GGAACCTCCT TAAAAATTAT CTTTTTTTAG AGCAGTTGCA
103101 TATTCACAGC AAAATGGAGG GGAAGATACA GAGATATCCC ATATCCCCTT
103151 GCCCCTACAC ACATGTGCAG TCTCCCTCAT TATCAACATC CCGCACCAGA
103201 CTGGTACATT TGTTACAATT TATGAACCTA CATTGATGCA TCATTATCAC
103251 CTAGAGTCCA TAGTTTACAT TAGGGTTCAC TCTTGGTGTT GTAGAGTCTA
103301 TGAATTTGGA CAAATTTATA ATGACATGCG TCTACCATTA TAGTATCATA
103351 CATAGTATTT CACTCTCCTA AAAATCCTCT GTACCTGCTT TGTTCATCAA
103401 TCCCGTTCTC CTAACCTTTG ACAATGACTC ATGTTTTTAT TAGTTTTGTC
103451 TTTTCCAGAA TGTCATTAAT ATGGTTTGGC TGTGTCCCA CCCAAATCTC
103501 AACTTATATC TCCCAGAATT CCCATGTGTT GTGGGAGGGA CCCAGGGGGA
103551 GGTAAGGCT CACGAGATTT GATAGGCTTA TCAGGGGTTT CTGCTTTTGC
103601 GAATAAGCCT CACGAGATTT GATAGGCTTA TCAGGGGTTT CTGCTTTTGC
103651 TTCTTCTCTA TTTTCTCTT GCTGCCACCA TGTAAGAAAT ACCTTTCACC
103701 TCCCACCATG ACTCTGAGGC CTCCCAGCC ATGTGGAAC GTAAAGTCCAA
103751 TTAAGCCTCT TTTTGTTCCT AGTTTCAGAT ATGTCTTTAT CAGCAGCGTG
103801 AAAACGGACT TATACAGTTG TGTAGTTGGA ATCATACTGT ATGTAGCCTT
103851 TTCAGACTGG CTTATTTCAC TTAAATATGG ATAAAAGTTT CCTCTATGTC
103901 TTTTCATGGC TTGTAGTCCA TTTCTGCTGG GTGGTGAATA ATATTCCATT
103951 TTCTGGGTGT ACCATAGTTT ATGTATCCAT TCACCTACTG AAGGACATCT
104001 TGTTTGTCTC TAATTACGAA TAAAGCTGAT ATAAACCTCT
104051 GTGCACAGGT TTTTGTGTTG AACATTAGTT TTCAACTCCT TTAGTTAAAT
104101 ACAAAGATGT GTGATGACTG GATTGGATGG TAAGAATATG CTTAGGTGTA
104151 TAAGAAATG CCACACTGTC TTCCAAAGTG GCTATACAAT TTTGTACTTC
104201 CACCAGCAAT GAATGACAGT TCCTGTTGCT CCACATCCTC ATCAGCATTT
104251 GCTGTTGTCG GTGTTCTGAA TTTTCTCAAT TCTAAGTGTG TAGTGGTATC
104301 TTGCTTTAAT TTGCATTCTT CTGATGATGT ATAATGTGGA GCATCTTTTC
104351 AGATGCTTAC TTGCCATCTG TATATCTTCT TTGGTGAAGT GTCTGTAAAA
104401 GTCTTTGGCC TATTTTAA TTAGCTATT TGTTCCTTTA TTGTTGAGAT
104451 TTAATGTATA ATGTGTAATG TATTATTATT ATTATTATTA TTATTATTGA
104501 GACAGAGTCT CACTCTGTCA CCCAGGCTGG AGTGCAGTGG TATGATCTTG
104551 GCTCACTGCA ACCTCTGCTT CCCAGGTTCA AGTGATTCTT CTGCCTCAGC
104601 CTCCCAAGTA GCTGGGATTA CAGGCATGCA CCACCATGCC TGGCTAATTT
104651 TTGTATTTT AGTAGAGATG GGGTTTCACT TTGTTGGCCA AGCTGGTCTT
104701 GAACCTCTGA CCTCAGGTGA TCCACCTGCC TCGGCTCTCC AGAGTGCTGG
104751 GATTACAGGC ATGAGCCACT GTGCCTGGCC ATATTTTATA TATTTTGAAT
104801 TATATTCCTT TATCAAGTAT ATCCTTTGCA TTTTATCTT AGTATATCCT
104851 TTGCAAATAT TTTCTCCCAA TCTGTGGGTT ATCTTTTCAT TCTCTTGATA
104901 GTGCTTTTAA CAGAGCAGAG GTTTTAAATT TAATGAAGTC CAGCTTATCA
104951 ACTATTTCTT TCATGGAGCA TGTGTTTGTT GTATCTAAAA AGTAATTGGC

FIGURE 3II



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Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

105001 ATACTCAAGG TCATGTAGAT TTC'TTCCTAT GTTACCTTCT AGGAGTTTAA
105051 TACTTTTGCA TTTTACATGT AGGTATGTGA TCACTTTTAA GTTGATTTTT
105101 GTGAAGGGTG TGAGCTTTGT GTCTGCAGCC ATATTTTTTG CATGTGTATG
105151 TTCAGTTGTT CCTGTGCCAT TTGTTGAAAA GACCTTTTTT TTTTCTCCTC
105201 ATGTTGTCGC CTTTGTCTCT TTGTCAAAGG TAAGTTGACT ATATTTATGT
105251 GGTTCATATT TGGGCTCTCT ATTCTAGTTC ATTGACCTAT TTGTCTATTC
105301 TTTCTCCAAT ATCATACTGT CTTGATTACT TTCGCTCTAT AGTAATTTTT
105351 TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT TTTTTTTTTT TTGAGACGGA
105401 GTCTCGCTCT GTCGCCCAGG CTGGAGTGCA GTGGCAGCAT CTCGGCTCAC
105451 TGCAAGCTCC GCCTCCCGGG TTCACGCCAT TCTCTGCCT CAGCCTCCCA
105501 AGTAGCTGGG ACTACAGGCG CCCGCCACTA CGCCCGGCTA ATTTTTTGTA
105551 TTTTGTAGTAG AGACGGGGTT TCACCGTTTT AGCCGGGATG GTCTCGATCT
105601 TCTGACCTCG TGATCCGCCC GCCTCGGCC CTCAAAGTGC TGGGATTACA
105651 GCGGTGAGCC ACCGCGCCCG GCCACGCTCT ATAGTAATTC TTAAGCCAG
105701 TTTTGTGAGT TCCTCCAATT TTTTCTTCT TTTTCAATAT TGTGTTGACA
105751 TCAGCTCCTT TTATGGAAGA AAAATCTTTC CCAGAAGTTA CCCTGTAGAT
105801 TTCCCTTCT GTCTCATTGA CCAGAATGAG ATCACATTAG CATCTGCAAG
105851 GGAGGATAGG AAAGGAAGTA TCGGACAAAG GACGATAGTA TTGCCATAAT
105901 GGACCAGTGA TTCTCAAAGT TTGGTCCCTC AACCTTAGGC ATCAGTATCC
105951 CTTGGACCAT CGGCATCGGC ATCCACTGGA AACTTGTTAG AAATGAAAAT
106001 TATTTGTGGT CGTGGTGGGG GCGGTGGGGC TGGAGCTCAG CAATCTGTGT
106051 TTACCAAGCT GTCCAAGTGA TTCCAATGCT TAAGGAGCAG AGGAATCATG
106101 TTTTCTCTCT TGGGGCTGAA CACATTGCTG TGATGAACAA AATTAGAATT
106151 CTGTTAGCGA AGAAGTTGGA GTAAGCAAAT GATAACGTCT CACATAGATG
106201 TCAATTAACT GCTAGCCACT GAGATCACTC ATAGAGAAGA TGTCTTCACT
106251 CTTCTTGTC ATAAATTAGG TGGCTGTTGG GATCCTTGAA TCAATCAAGA
106301 TAAGCTAGCC TATCACAAC AGCCTACTCC CACTCCTGCC AGATCTGCTG
106351 CAACCCAGGC AGCTTCTCAG GCTCAGGGC TAGATAGGGT GGGGAAACA
106401 GCTGAGCGCT GCTTGTGCTG TCTTCAGAGC GTTGTCCCTC AGGTAGAGCC
106451 CATTTGCCCC AGCTAGTTAC CAGGTCCCAT TCGTAGCTGC AAAGGGGGTT
106501 TGGAAATGCAT TCTTTTATCT CCAAGAATAG TAGTGGATGG TAAAATTGTT
106551 GCGCACTGGT ATAGTCATGT TCATATGCTC TAAGATGCAC TCCTGGGTCC
106601 CACTCTAGGG TGACCAGCCT TTCAGGAATT TAGTTCAGG TCGTTTGTGC
106651 ATCACTCTTC GGGGGGAATA CTAATATTGT GAGACTCATA GATTTACAC
106701 CTGAGAAAAT GGAGCCTGTG AGGTGACTTG CCTGGATCCA CACAGTGAAT
106751 TGGTGGTAGG ACCTGGATTA GAACCACTAA TCCTGCCTTA ACCTCTTCCA
106801 GATGGGCTGA AAATATTAAT GTCAGATTAA TCTACACCAT GAAACCAATG
106851 TGGAGTTTAG AATATTTTAG TATACCATAC TAATTAAAGT AAAAATAATT
106901 CTTCTGAGT TCCCAGGGAA ATATCTGGGC AGTTAGCATC CCAAATATCT
106951 GCTTATTGAG GATGAAGGAG GGCTGACATT GGATTCTGAA GCAGGTTTGG
107001 GAAGCAGGCG GCCTCTTCT CCCCTGCTGT GGGGTAGCTG TCTTCTGCTGG
107051 CCAGGCTGAT TATCACTTGA TAGGATGCTG TAGGAAAACC AGTCAAATTC
107101 TGGACTGATT CTCATTTTCT TGGCTCCAAG CTGGACTTTG GCCTCTGGTA
107151 GGAAGTACCT GCTTCTTTTT TTCCGGCTCG GATCAGCAGG CTTTCTGGTA
107201 TTTCTGTAA AACCAAGGGA CACCTTTTTT TTTTTTCTT TTTCTTTTTT
107251 TGGCTTTCCC CCCGCCCAA GGATATGGCA GAAATGTTTA TTTGCTTATG
107301 GATCCAAATG ATTCTGGGTG TCACTGACAA ATAATAAAC ATTACCCTAG
107351 ACTTACGAGT GCCAAAATTA CTTGGAAAAT TTAGAACAGG CCACATGTTT
107401 AAGATGGAAG TGATGACAAT CTCAAAGTGC TAATACGGTT AAATTAGTGG
107451 ACTGATCAAC CACTTTAGAT TCCAGGAAGG GGCATGTGGC GGAAGCCAAA
107501 GACTCTGCA GGCCTCTGCC ATGTGCCTGG CATGGATCAA GGAGAGGCTT
107551 TTAAGAACAC AATTGGCAGG AAGCTTCTGT TTCTCCCAAG GCATCTTTGA
107601 GCTAGCATTC AGCAGCAAAA GGGTTAACTT AAAATAATTA CTATTTCAAG
107651 AGGCAGGCGC AGTGGTCCAC ATCTGTAATC ACAGCTCTTT GGGAGGCCAA
107701 GACAGAAGGA TTACTTGAGC CCGGGAGTTT AAGACCAGCC TGGGCAACAT
107751 AGTGAGACCC CATCTCTGAA AAAAAAAGA AAATCGAGCC CGGGCGTGGT
107801 GGCTCATGCC TGTAATCCCA GCACTTTGGG AGGCAGAGGC AGGCAGATCA
107851 CTTGAGGTCA GCAGTTTGAG ACCAGCTGG CCAACATGAT GAAACCTGT
107901 TCCTACTAAA AATACAAAAA TTAGCCTGGC ATGGTGGTGT GTGCTTATAG
107951 TTCTAGTAC TCGGGAGGCT GAGGCAGGAG AATCACTTGA ACCGGGGAGG

FIGURE 3JJ



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

108001 CAGAGGTTGC AGTGAGCTGA GATTGTGTCA CTGCACTCCA GCCTGGGTGA
108051 CAGAGTGAAA CTCTGTCTCA AAAAAAAAAA GATTCAAATT ACTTGGGTGA
108101 GGTGGTAAGT GCCTATAGTC CTAGACACTC AGGAGGCTGA GGAATGAGGA
108151 TTGCTTGAGT CTAGGAGGTT GACACTGCAG TAAGCTAGGA TCACATCACT
108201 GTACTCTAGT TTGGGCAACA GAATGAGGCC CTGTCTCTAA AAAATATTTTT
108251 AAGTAAAATA AAAAAATAAA AATTATTATT TCAAACAGAT CAAAAATACCC
108301 TGTTTTTGAA ACTGGGTATT ATTTTCAGCA TTGTAGGTTT AGCTACAGTT
108351 TCCAATACCT ATTGTAATG AAAAGTTCAA GGGTCTTGGC TGTGCACATC
108401 AGCATTGCAC CCAAAGAGGC AGGGGAGGAG GGCAGAGTGG TAGGCTGTGG
108451 CTTTAGTTTA AGAAATGGCT GCCTTTCAGT AGTGTAGAAA AGACACAATA
108501 TCAGTGAAC TCACTTACC AGTGCCCAT TGTCTCTGGA GTATCTGCTT
108551 CTATGTCATG CCTGCCTAG TACATACCAT ATTATAAGTT CCTAACAACT
108601 AACTCAGTAG GATTAATGTT ACATAATAAT GTGAGTTTAT TTATTTATTT
108651 ATTGAGACGG AGTCTCACTC TGTGCCCAG GCTGGAGGGC AGTAGCATGA
108701 TCTCGCTCA CTGCAACCTC CGCCTCTTGG GTTCAAGCGA CTCTCCTGCC
108751 TCAGCCTCCT GAGTAGCTGC GGCTACAGGC GCGTGCCACC ATGCCTGGCT
108801 AATTTTTGTA TATTTTTAGT AGAGACGAGG TTTCAACATA TTGGCCAGGC
108851 TGGTCTCGAA CTCCTTACCT CGTGATCTGC CCACCTTGGC CTCCCAAACCT
108901 GCCGGGATTA CAGGCATGAG CCACCACGCC CTGCCGTGAG TTTATTTTTTA
108951 TCAGAGAGAA GGCCCTGGTT TTAATGTAAA CAATTGCTTT CTTCCTTTTC
109001 CTAGGCGGCA AGAAGGTAGG AAGTAATTAT TTGAAAATGC AAATAATTTT
109051 AAAGCTTTAT CAATCAAGTC TGTTCCAAAT TAGTTTAAGG ATTTTCTGTA
109101 GCTTTAATGA TAGGGCCAGA ATGTACATTT GGGGTGACCT ACATATATGA
109151 CATCCACAAA ACAGACTACA CAACATTTCT TAATGACAGT CCATGACAGT
109201 TTTTCCATGG ACGGCTCCTT CTTTCTCTCC TTCATTTAAC ATAGGATTGC
109251 TCAGCCTCGA TACTATTGAC ATTTTGGTCT GGATAATTCT TTGTCATAGG
109301 AGTTGTCCTG TGAATTGTGA GATGTGTAGC AGCATCCCTG GGCCTCTACT
109351 CGCTTGATGC CAGCATCATC ACTGCCGCA GTTATGACAG CCAAATGTCT
109401 TCCAGACATT ACTAAATGTG TCCTCAGGGG CAAAATCGCC CTAGTTAATT
109451 TGACCATAGC TATACTGGGA TATAAGGGGA CAATTGCCCC AAAGACTACC
109501 AGGTGCATGC CCTGGTCCCC TGTCCAAATC TTCCACACGA GCTCTGGTGC
109551 CTCCACCAAT GATCCTAATC AGTTTTCAG TGCTAGCGCC ATTCCGACTC
109601 AGAACTCTCC TCCTTCAGAT GGGTCCTTAA AGAGGGCTTT GCAGATTTTA
109651 TACTCCGGGA ATGAGATCAT TTCTCACCAA GAAAGCAAAA ATGCCTGGAG
109701 ACTTGACTCT GATGAGTACA CATAATGACA AATTGTTCTG CTATTATTCT
109751 TCACTAGGCA AACCATCTCA GCACTAACTT TAACTGACCC ATAGGGACTT
109801 ATCTAATGTA TGGTTCTTCT TTCTTGGCTT ACCTTTCATA ACTGGCCAGT
109851 ATCCCTTTGG TGTTCCTGT TGTCTCTGA GGTCATTATA GAACGTTTTA
109901 ATGGCCTTTA AAGTGCATCT TCACTCTTTT CTATGCACAG TAAAGATATC
109951 AAACATTGCC TAAATAGAA CTACTTAAAA TACTGCCTTG ATAGCGTTTA
110001 TCATTTAACC TATTTCCAGG TAGCTTTAAC AGAGTCTCTC TCTGTCTCTC
110051 TGTCTCTCTC TCTCTCTTTT CCCCCCGCA AGCTTTGATC ACAGGTAACCT
110101 TCTGGGAATC TGATTGTTAC TTTGGGGTGG GAAGTTATTC ATGAACATCT
110151 GCATGCCAGA ACCTTTGTAG GGAGCCTTGG ATCGGTCATT TGTCTGAGAG
110201 GATTTTGTTG AGATAATACT GAGTATTATG GCACTGTGAT ACCAAAGCCT
110251 AGATATAAGT CACTGATATG GTTTGGCTGT GTCCCCACAC AAATCTCATC
110301 TGAACGTAG TTCCCATAA CTTCATGTGT TGTGGGAGGG ACCCAGTGGG
110351 AGGTAATTGA ATCATGGGGG AGATTATTCC CATGCTGCTC TTGTGATAGT
110401 GAGTTCTCAT GAGACCTGAT GGTTTTATAA GGGGCTTTAA CCCCTTTGCT
110451 TGACACTCGT TCTCTCTCCT GCCATCCTGT GAATAGGTGC CTTCCACCAT
110501 GATTGTAAGT TTCCTGAGGC TTCCTCGGCC ATGCGGAACCT GTGAGTCAAT
110551 TAAACCCCTT TTCTTTATAA ATTACCCAGT CTCGAGTATT TCTTCATAGC
110601 AGTGTGAGAA TGGACTAATA GAGTCGCTAA TCTGTTTTGA GGGTTTATTA
110651 TGCCAGATAC TGGGCTATCT GGGCTTTACC TAGAGTAAGC TGTACAGTAA
110701 GTAACCCCTG CAAAGAGATC ATTATTGTTT CTTAATTATA TGAGTTTGGA
110751 ATGCTTAGAC TGGTTCTGTG ACTTGTCCAA GGTACACACAG CCCATAAATG
110801 ACAGAACTAG ACTTCCAAAC TTGGTCTCCC TGCCCCAGAG TGCATGAATA
110851 GACTTAGTCA TTCCACTATA TGCCCTTTCT TCTTTCTCTT GCAATGTAGG
110901 CATAGCATCT GATGGCTCAG AGGAGCCTTC ACAAAGGTT TAGTAAGACC
110951 TGGGGACAGA TAAAAATGGC TAGTTGAGAG AAAGATATTG GGCCTGTCTT

FIGURE 3KK



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

111001 CATCTGCTTT AAAAGGATTT TAGTTTTCTG ACTTCATGCT CTCTCTCAGT
111051 GTGTTGAATT GCATCATAGC CTCTGGTTCT TTATGTATCT GCTTTAGTTC
111101 CCTAATACCA GCTCATTATT AGTTAATATC TCTTTCTTTG TGTCTCTTTT
111151 TCTTGGAGGT TAATCTAAGA TTTAGGTGTC CCCTTGCTCA TGTCTGCTGC
111201 TATGTGACTA ATACAAAGAT GGGTTTATAT TCTGGTATCA CTATAGGACA
111251 TTAAGGTAA TGTCAAAAAC CACAATTACT TTTGTACCAA CCTAATAAAA
111301 GAGGGGCTTT TACTGTACCA ATAGCTGACT TGTTTTGACC CACCTCTGCG
111351 AGAGCAGTTG CAGGCAAAG ATAGTCCCA CTCTGTCTT CCATCCACTG
111401 CTCTACTTTG TACAACCTGC TTAATGTAA AAACAGGAGG AAATGCACAG
111451 CTCAAAGCCA AGCCTCTTGG TGCCCTGAGA TAGCTGGCCT TGTCTCCAA
111501 AGCATTCTTC TTTTCTGCG CTCATCAGAA TGCCTCAATG CTCTGCTTCG
111551 ATGGTTTTAA GAGCATAGAG TGGCTTGGTG TGGTGACTCA AGCCTGTAAT
111601 CCCAGCACTT TGGGAGGCTG AGGTGGGCGG ATCACCCTGAG GTCAGGAGTT
111651 CAAGACCAGC CTGATCAACA TGGAGAAACC CCATCTCTAC TAAAAATACA
111701 AAATTAGCCA GGTGTGGTGG TGCATGCCG TAATCCAGC TACTTGGGAG
111751 GCTGAGGCAG GAGAATCACT TGAACCTGGG AGGCGGAGGT TGCAGTGAGC
111801 CAAGATCACA CCACTGCACT CCAGCCTGGG CAACACGAGT GAAACTCTGT
111851 CTCAGTAATA ATAATAATA TAATAATAAT AATAATAATA ATAATAATAA
111901 AGTAAAATAA AAAGAGCATA GAGTTTGAGA CCATCACCAC CAAGATTTTA
111951 ATTCCCACTG GGGATTAAAC TCAGTCCTAA ACTCAAGGTC TGCTATGTCA
112001 AGTAGTATTA AATATCTCTT CCTTTAAGA GCCATTAGC TCTTCTCTCA
112051 TATCTTTTCAG ATTTTGTCTG TTTTCCCTAA GGCTTCTGAA ACTCTTAAAA
112101 CATCTCTGAT AGAGGAAACT ATCTAGAAAA TTTTATGGGT ATTCTATTATC
112151 AGTGAGGTCT TTCTCATGTA AGAGATAATC ACTTCTTAGA ATCCCAGGGG
112201 TTTTCATTAAG TATTAATAAA AGGTTTATA TTTTTCATT TTGGGGCTAG
112251 TGAAAGTCTA GTGATGCTTT AGGTCTACAA CATGGTAAAC TGTATTTAAA
112301 GATTCCAGGT GCTTTTGAGT TATGAATTTA ATGCAAGAA TCTATTAGCA
112351 ATCAGATTTT TACTAGTATT ATAAAAATCAG CATAATAGGT GAATGATTTC
112401 CTATGTTTCA CTATTTTATC CAATTTTATC AGGTAGTTT GGTCTCTCTG
112451 GAATGCACTG ATTTAATAAA ATATTAATTC TTTGCTCTCT TCTTATAGAG
112501 AACTTTTTAA AAAATTATCG TAATTTTTTT TTTCTTTTTA CATTTAGCCT
112551 CATGTTACTT CTGTGAGCCA AGCAAGCAAT GACCTACTTT GGTGTAGCTT
112601 CTAACAAATT AGGTTCCTGA AAATTGAGAG GTGCCCTTAT TGAATTGAGT
112651 GTGCTCATCA CGGAGCTGGG TGTGTGATCT ATGTGTTTCA TGTAGGATAA
112701 GTTTTAGATG ACTGGCATGT CAGTAGTCAT TGATACTTTC TAGATAGCTT
112751 TATGACTTTT TGCCTTAGGG AAGGGAAAAAT GTTTAGAATA CACATCATT
112801 TTGAAAGGTG TGCCAGTGT CTGAACCATC ACACCCCAA GAGCCAGCTC
112851 CCCTGGGAGG TGACAGTGTG ACAAGCATGT GCAGCCCAT GCTGAGCAGG
112901 CTCTGATGGC TTTGCATAGT GAAGGGCTGC CAACAACTG CACTCTCCTG
112951 AACTGAATCC AGCCCAGGAA ATGTGCATTC CTGTTAGAAG TGCACCTTGT
113001 ATTTCTGGGG AGAATGCAT TGCTTTGTAT TTTCTGAGAG GAGCTGCATT
113051 TGTGCATCAT AAGTTTGTAC CTAATGGTTT TGCACATATG CTTGGAAGTT
113101 TACTGCTGAG TTTTAGGCTC CTGCTCATAG ATAGCTGTAG TTCTCATCCT
113151 ATAGGTGGTG GACCCCTAGG AGCCTGAGGT GTCGTTTTAA AGGATCAGTG
113201 AATCCTTTTG TGTTCAGC ATTGCCAGTG GACAGAATAA ACAATATGTC
113251 TCCTTAACAT GTGTGCTGCC CTTTTCCAAA TGTGTGTAGA GGGGTTGTCA
113301 TCAATGATTC ATTTCACTTC ATTTTAAAGG GTGACTCCCG AATTCATAGT
113351 ATCTATAGTA TCTTTTCTT TTCTTTTCTT GAGATGGAGT TTTGCTCTTG
113401 TTGCCCAGGC TGGAGTGCAA TGGTGCGATC TTGGCTCACC GCAACCTCTG
113451 CCTCCCGGGT TCAAGTGATT CTTCTGCCTC AGCCTCCTGT ATCGCTGGGA
113501 CTACAGGCAT GTGTACCAT GCCCAGCTAA TTCTGTATTT TTAGTAGTGA
113551 TGGGGTTTCT CCATGTTGGT CAGGCTGGTC TTGAACCTCT GACCTCAAGT
113601 GATCTGCCCC CTTGGCCTC CCAAAGTGTG GGGATTATAG GCATAAGCCA
113651 CCATGCCCGG CCTCTCTCTT TCTCTCTCT TCTCTCTCGA TATATATATA
113701 TATATATATA TTCTCACTAT CAGTTAGTAC CAAAAGTTCT ATTGTGTGT
113751 GGGGATCAAG GATATTTTAA ACCTTCAGAA GGGAGTGCCA TACTCAAAAG
113801 TTGAGATCAC TGGTCTTTCA AGTTAGCATC AATTTCCATG ACATTCTGGG
113851 CTTTCTTTT TCTGTGGATT TAACATTTTC ATCCTGGCCA TAGTCATTGT
113901 TACAAAGATT TTTTTTTTTT TTTTGTGAGA TGAAGTCTAG CTCTGTTGCC
113951 AGGCTTGACT GCAATGGCAC AGATCTCGGC TCACTGCAAC CTCTGCCTCT

FIGURE 3LL



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Title: ISOLATED HUMAN TRANSPORTER...

114001 CAGGTTCAAG CAATTCTCCT GCCTCAGCCT CCCAAGTAGC TGGGATTACA
114051 GGCACCTGCC ACTGCCCTGG CTAATTTTGT TATTTTGTAGT AGAGACGGGG
114101 TTTCACCATT TTGTCCAGGC TGGTCTCAAA CTTCTGGACC TCATGATCCA
114151 CCTGCCTCGG CCTCCCAAAG CACTGGGATT ACAGCCGTGA GCCACCGCGC
114201 CTGGCCAGAA GTTTTCTTTT CCTCTAAGTT ACTCCAGGA GTTGGTAGGA
114251 TACTTTAGAG CCTGCTTCAA GATTTTCTTT ATGCCTTTTT TTAATTGTGT
114301 TAAAGTGTGC ACAACATAAA ATTTACCATC CTGTTTTTAA GTGTACAGTT
114351 CAGTGGCATT AAGTACATT ACATTGTGT GCAACCATCA CTACCATCAT
114401 CTCCAGAACT TTTCCATCTT CCCAAATGAC AACTCTGAGT CTGTTCAATA
114451 ATAAGTCTC ATTTCTCTC CCCCAGCTCC CTGGTGACCA CCATTCTACT
114501 TTCTGTGTCT ATGAATTCA CCACTCCGGG AACCTCATGT CAATGGAGTC
114551 ATATAGTGT TGTCTTTTG TGTCTGGCCT ATTTCACTTA GCACAGTGTC
114601 TTTAAGGCTT CATGAATATT GCACATGTGT CAGAAATTC TTTCTTTCAA
114651 GGCTGAGTAA TATCCCTTG TCTGTATATA CCACATTTG CCTATTTGTT
114701 TATCTGTGA TGGACTTTTG GGCTGTTTCC ACTTTTGGT TGTATGAAT
114751 AATGCTGCTA TGAACATGGG TGTATAAACA TCTATTCAAG TCCCTGTTTT
114801 TAATTATTTT GGACATATAC CCAGCAGTGG AATTGCTGAG TCACATATAA
114851 TTACAGATTT AATTTTCTG AGGAACCGTG AACTGTTTT CTACAGTGGC
114901 TGCACCATTT CACATTCCCA CCAACAATGC CCAGGATTC TGTCTTTCCA
114951 CTTCTCACC AACACTTGCT TTTTCTGT TTTTTTTTTT TTTCTTTAA
115001 CTTTTATAGG CCCAAATGAC AGCGTTTGGT AAATTGCTGT CTGACTGCCT
115051 CTAAGTCTG GCTGCTCCCA TAGCTGCTGT TCTATCACTC TGGGGACTAA
115101 GTGGAGAGGC TGTGCCGTTA GCCTTGCTTC CCTCTGCAC CTTCCCTGTC
115151 TCCCTCCCTG CCCTAACCTA CAGCTGTGTC CCTGTGAGTC TTTCTTCCT
115201 ACTCGTCAGC TTGGGCCTG TGCGCAGAGC TGGTGGGAGG ACGGGTGGCT
115251 CAGTGCCAGG CCGACTAGGG CCTCTGCATA CGGATGACAT CCAGTTTCCA
115301 CCAGACCTTT TTTCTACTCT GAAATCCTTT TATTCACCCA ATCATGATTC
115351 ACTTTTCTGT TCTTCACTGT GGCTGTTTCT TCATGCTCCT CGCTAGGTCA
115401 ACTTGATAAA CAATTATCGA ATAACACTTT TTTGTGTGTG TTCTCAACAC
115451 TATAGGGATA TGTGGCAATA AACAAGGGAT AGTCCTTTCT CTTAAGGAGA
115501 AAACAGCCAT GCATCAAGAC CAGTGTCCAT AATATTGTGC AGAATGATAC
115551 CAGGGCTAGG GCAGGCAGGC TCTGAAGTCA CACCACCTTG GGTGAATGAT
115601 CCATGCTATG TCTACTTCTT ATCAGCTATG TGACCTCAGG CTGTGCCTCA
115651 GTTTCTTAT TTGAAAAAT GAGGATAATA ATGGTTCTTG TCTGTTTTGG
115701 CACTTAGTGT ACACTTGAGA GCAGTGTCTG CCACATAGCC TCAATCAATG
115751 CTATTCATA TTATTGTAGA AACTGTTAG CTATGGGAGC CCAGAGAGGG
115801 ACTTGTTAAG TCTAGCTTGT ATATTTTACA TCACACAAGC ACCTGCCTTG
115851 TCTTGCCAAT GGATTGTCT GCTCAAGTAA AGCATAGGGG CTTAAAGCTA
115901 AATGTTACTG TGCCTTATT GGCCTGTATC CCTGTAGGAC CTGCTCAGTG
115951 CTAAGTGCTT TGGAGGTGTT CAGTAAATAT TTATTGATTG TGAATTGATT
116001 AGAGAGGAGA GAGACAGAA CCAGGTCTTT TTCCAAGCAG CCAGGATGTG
116051 TAAGCTTCAC AAATGAAGAG ATGCTTGCTG ATGCTGCCCT CTGTCCTACC
116101 CTTCTTGGA ATGGGCATGG AGGTGGGTGG GGCTGGAGAA GTGGAGGGGG
116151 CCACAGAAAG GGTAGCGACA GAGAGAAAGA AACCCATGGG CAACAGGGTC
116201 TGTATCTGGG ACGGGACCTC AGCCATCAAG CATGGCCTTG GGAGGAGAAG
116251 ATGCACTGGC CGCGATGCAG CGAGCCCTTT CGAAAGGCAA ACAGCACAAG
116301 CAAGAGTGCA GACGGCAGGT TCGTCGGCTC CTCTGGGGCT CCCCAGGGG
116351 ATGCCGTTGC CATTCGGTCT GCGTGAAGGA GGCAGGTGT CTTCTTCGTC
116401 GTCGGCCACA CTTCACTGGC TGCAAGTGTT CACGCAGATG TGCTCATGTG
116451 ATCTTACCAC ATACGCAGAT TCTAGTAAAA AAAGAAGAAA AAATCCAAGA
116501 ATGAGTGAGA ATTTATTTTA GCTACATGCT GACTGCCTCT CAGCTTGCCC
116551 GTGCTCTTAC CAGATCTTGA AAACAAGGGC CAGTTTGTAT TTTTATAAAA
116601 ATGCATCAAA GTGTTACTAA AAGATCCTAA AGGAAGACTA AAGTTTCCTC
116651 CGAAAAGAAG CCTGGCCCTT CAAATACCAA CAAGGGATCC TCGGAAGATG
116701 GGTTTTACTG AGCTCAAACA CTGTCTCTTC TGTTTAGATA CTGTATTATT
116751 ACATCATTTT CCCTCTCAGA TTGAGTGATG TTTCTCCAT TATTTGTTC
116801 GTTCTTTGGC AGAAGTGAAT TTCACCATGA ACAACATCTG CAGTCTTTCT
116851 ATACGAGCCT GGGGAATGCT TGAAAGAACT GATACTAAAT TATTATTATT
116901 AATATTTGTT TGTCTACCTA TCCACTCCCC ACCCCAGGT CCCCTCTCAC
116951 TCCCAGTAG TCACAAATGG GTGTATCGGG CATCTCGTCT CAGTTGTCAG

FIGURE 3MM



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117001 GACTGTCCCT TCTCATTCTA AACTATTTTG CAGATTAGCT TGAGCAATTA
117051 GAATCAGGAA TAGATATCAT GTGGTTAAAA TAAAAGGGAA TTTATCTACA
117101 ATTTGAAAAT AGATTACAGA GAACTTCCAT GTGATTTTTT TAAAAAATA
117151 AATTTTGCTG TGTACTATAA CAGAGTTGGC ACCAGAGCTA ACAAAAAA
117201 AGCAAGTATC AACATTTAAA ATGCAGTACA TGACATGTAA ATGCCATATG
117251 GTATTCTTGC AATGTTATTA CCACCTTCTT TCTGGCATCC TTTTCCTGAC
117301 ATTGCTGTAT GCTTCTTGAC TCTGCTGCTC TTCAGAAAGC CTCAATTGTC
117351 CTGAGCCCTT TAATTCGTGA TTTATATTAG GTGTCTCTCT CTTTATCTA
117401 CCCTTTGGAG GCTTATCAAC CTTTTCCCA AGGAAGAGGA AGAAGAGGAC
117451 CTGTACAGAT GGCTGTATAA ATATGTGACA CCTGCTTCCG TGAGCCACTA
117501 TTGGAAGAGT TTAAGAGTTG ATGGTATTGT CCCCTGTCTA GAAGATGAGC
117551 ACACATTGTC TTCTCTTCTC CTTTCTATTT TTAATAAATG ATCATGTGCC
117601 TTTAATGATG TTTCTAGAAA TGTCTTGAAT TCAAATTATT TTCTATTTTT
117651 AGGGAATAA AAAAGGAACC CACCAACCA ATTTTCTGAA AAGATTATAT
117701 GGGTCAAAAT GTTAAAAGTT TGTCATAGTT AATATTTCCT AAAGTAAGAG
117751 CCTTGGTGAT CGTGTTTGGG GAGAAATCTC TGCTTCACCA CGGGAATGTC
117801 AGTGGATCTC TGCGTTTGCA CTGAATGTGC CACATTCTTT CATCTCCAGA
117851 CTTTTGCGTG TGATATTAT GGTGTTTCAA ACAATGTCTG TACCTCCTC
117901 CTGGTCTCAG CTCAAATGTC AGTTCCTTGG GGAGCTTTTC CTGACTTCTA
117951 AATGAAGGTC AACACCCCG CAAATAACAT CTGTAGACC CCAAGAATAA
118001 CATTCACTC ACTGTATTGA TGGTGGGCAT CCCCATCAGC CTATGAGTTG
118051 TGTGAGGTCG GGTCCCATCT GCCTGTTTAC CACTGCATCT TCAGGTGCTA
118101 GCACATGGCC TGGAAACCCAG AGAGCACTTA ATCCATACTT GATGAATCAA
118151 TGAATGAACA TTGCTAGACA TAACCTTATA CATCTGATA TAGAAATGA
118201 CCTTGAAGCT GGACTIONGTC CCAGTTACTT GAGAGGCTGA GGCTGGAGGA
118251 TCAGCCCAGC TTGGGCAGCA TAGTGAGACA TCCCCATACC CTCCTACTCT
118301 CCTAATCCTG CACAATCCCC CTCTAAAAA AGATAAACAG AGTGACCTTG
118351 GGCTGGCGCT GTGGCTCGCG CCGTGAATCC CAGCACTTTG GGAGGCTGAG
118401 GCGGGCGGAT CATGAGGTCA GGAGATCGAG ACCATCCTGG CTAACATGGT
118451 GAAACCCCGT CTCCTCTAAA AAATACAAGA AAATTAGCCG GCGCGGATGG
118501 CGGGCCCTG TAGTCCCAGC TGCTCGGGAG GCTGAGGCAG GAGAATGGCG
118551 TGAACCTGGG AGGCGGAGCT TGCACTGAGC CGAAATTGCA CCACTGCACT
118601 CCGGCCCTGGG CGACAAAGTG AGAATCTGTC TCAGAAAAA AAAAAACAAA
118651 AAAAGAGAGT GACCTTGAAA TCGAACTAG TATTGTATGC AAATAAATGG
118701 CAATGGGGAA AAAAAATTCT TAGGCTTTGA AGTCCAATTA TTTTGAATAA
118751 AAGATGGGTC TGTAGGGAGC TGCTCCCTGC TAATGCTTAT TGCCAATGGT
118801 ATTCAATATG AGACACTTTT ACCTCATCAG GCTATACTTA GAAGTGTAAT
118851 TCTACAGACT TATCAAGTCA ATCTTCTTAA ATACAGTATA CAATTACCT
118901 TCACCCAGTG GTTCTGAACC CTGTAATATC CAATATTCTT TTATAGCATA
118951 TATTTATGAA TACTCCTTTA CTACATTGAA ATGAATTTCA GAGACAGTGC
119001 ACTTTGCCAA TACAGATAAT TCTGAAAAA TCAATGCAAA TTTTCTAGCT
119051 ATAATATAAA GGAGAAATAA ATGGAAAGTA ATGTTTCAAT AATAGGTGCT
119101 CTGTTATGAA ACCCTAGGAG ACCTGCTGAA GCAGTGAGTC TTGGCATCTA
119151 TACGTAGAAT GCAATATCTC CAAATGCAGA TTGGTTCAGG TATGTTGTGT
119201 TGATGACTAA GATGTCACAA AGGACTTTTT CTCCAGTGGT GTGGTTTTCC
119251 AAAATAGAGA ACAACTCTCA GCAAGGTTCC AGCTAATCTA TTTACATTAG
119301 AGTCAGATTC TTAATAAATT TGGTCAACTT TGAAGAGATG CAAACAATTT
119351 GTGTGTGTGT CTTACATGTT AAAAGGGAGT TAGGTTCTTG GCTCAGATAA
119401 TTGTAGACAT GAGTTTTTCT CAGTGGGACA TTCAAAGCTC ATGCTAAAATG
119451 TGGGATGGTT CTGTGATTTG TGGCACTGAT TGTGTATTG CAGGACATCT
119501 GAACGTCTTT GACCTCCTCC CAGTACATGC CAAACGTGCC CCTCCAGTTG
119551 TGACAACCGC AAACACCTTA ACAAGTTTAG AGACCACCTC CTAGGTGTT
119601 GTAATCTAAA CAGGGTTATA AACAGAGCTT CCAGGGGGCT CCCATGTAAC
119651 TTTCAAGAA TACATATTT AATTTCTATT CTCGTGAAAA TGGCCATGTT
119701 CCAATAGTTA AGCCTCTTCC CTTGATGTAT TTCCCATGCC ATTAATATT
119751 AGTTCATTT CACAAATATT TATTATATGC ATATGTGTGT GTACATCCAT
119801 CTGACTATAC CTTTCTATGT TATGTACCTT TACTAGAATT CCAAATATA
119851 AAATCCTGTC AGTTTATCTC TTGCTAGATG AATGGTTTTA TTGTTTTTGT
119901 AGAATATTTG CTTTAAACAG TACTCTCATA TTTTCTTGAG GTGCTAAAAA
119951 AGAGGAGGCA GCTGTAGAAA AATGCACTAC GGGCCAGGCG TGGTGGCTTA

FIGURE 3NN



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

120001 TGCCTATAAT CCCAGTACTT TGTGAGGCCA ATGTGGGCGG ATCATGAGGT
120051 CAAGAGATTG AGACCATCCT GGCCAACATA GTGAACTCC ATCTTACTAA
120101 AAATACAAAA ATTAGCTGGG CATGGTGGTG CATGCCTGTA GTCCCAGCTA
120151 CTCGGGAGGC TGAGGCAGAA GAATCACTTG AACCCGGGAG GCAGAGGTTG
120201 CAGTGAGCCG AGGTCACGCC ATTGCACTCC AGCCTGGGTG ACAGAGTAAG
120251 ACTCCATCTC AAAAAAAAAA AAAAAAAAAA GAAAAAGAAA GAAAAAGAAA
120301 ATGCACTGTG CCAGGCACTT AGAACATTGA GATGAAGGAG CACACTGTGT
120351 AGTAGGGAGA CACATGGATG GATGGACAGA CAGTGATGCA GGTGAGCAG
120401 TTCTATGGAC AGGGGACCAT GCAAGGGTGA AGGAACATGG ACAGCAGAGA
120451 GCAAGAACTG GAGAGGGCTT CCTGCAAGAG GTAATGTCAG AATTGTGTGT
120501 GAGGAATGAA CAGGAGTCCG ACAAGCATTAA AAAAGGGCGA AGAACCTTAT
120551 CCTAGCAGAT GGAACAGCCC TTAAAAGGGC ACAGAAGCTA AAAAGAAAATG
120601 AGCTATGAAG CCATGAGAAG ATGTAGAGGA ATGCTAAATG CATATTGCTG
120651 CGTGGAAGAA GCCAATCTGA AAAGGCTACA TGCAGTATGA TTCCAACCTAC
120701 ATGACATTCT AGAAAAGTCT AAACATATGA GACAGTTACA AAGATCCATG
120751 ATTGCCAAGA GCCTGGGGGA AGAGAGGGAT GAATCGGTGG AGCAGAGAGG
120801 ATTTTTAGGC TAGGGAAACT ATTGTGTATG ATACTATAAT GGTGGATACA
120851 TGTCACTAGA CGTTTGTCCA AACCCATAGG ATGTACAGCA CCAACAGTGA
120901 ACCCTAATGT ATACTATGGA TTCTGGATGA TATTGTCAGT ATAGGCTCAT
120951 CACTTGTAAC CAGTGCCTA CTCTGGCATG GGATGTTGAT AGTGGGAAG
121001 GCTGTGCATG TTTGGGGCGG GGGCTATATG GGAGATCTCT GTACCTTTCT
121051 CTTAATTTTG CTGTGAAGCA AAAATGGTTC TAAAAAATC AAATCTTGAA
121101 AAAGGCACTG AAGTATAAAA TGGAGCAGTA TTGGGGCACC AATAAACCAT
121151 CCAGTCTCTC CAGAACTGCA AACTAACTGC TACTACAGCA AGAGAGAGGG
121201 GTCAGCAACT ACCTGCCTGC AGCGGGGGTA GGGGGGAGTT GGGGGAAATG
121251 GCGGGGGGTG GGGGTCCCTG ACAGTTTCTT CAGAAGTGGG TTGACGTATT
121301 CTGGAGGAGG AGGAGGAGGA GGCAGCATGA GGCAGCAGGC AGGATGCATT
121351 TCTTGAAGTG GATCATGGCC AGGTCCTTAC AGCTCTCCCA CTGCCACCTT
121401 TGGCAAACAT TCCTGGGATC CTGAAGGCTC AGACAAGGCC CATCCCTCTT
121451 ATGTTACCAT GGGGATTATC TCTTCTCTCT TTTCTCTTTT AGTTTTCCCT
121501 CCAAGGAAGG GTTGTCACTC CTTTTCCAAA AGGAAGAAGG ACCAAGTGAA
121551 TGATTTTCAA GGGCACAGTG CTGTTATTTT TCGAGGGAAC CTCTGCCATG
121601 TTCTTGAGCA TGTTGCTCGT TTTCTCCTTC CCTTCTCTTC TTAGCCCTCT
121651 CCCTCTCGCT CTCTCCTACC TCTCCCCCTT TTCCTTTTTC TTTTCATCACA
121701 AAGACTACAA AGAGTATACA TGGTCACTGT AGAGGCCTTG GAAAATGCAG
121751 GGGAGTGCAA AGAAGAAAGT AAAATCCTGT AAATATCCTT TGTCCAAAGA
121801 AATCCACCAC TAACACGTTG ATAATCGTAC TTCTGAATCT TTTCTCTGCA
121851 TCTACATTTG GCCCAATGC CTGGTGCTCC ACTGGCCCCA CAGTACCCCT
121901 CCCACCTGCT ACCTACCTTG TCCAAGTTTC CCTGCCCCG GGTACTGGCA
121951 GGGGTTGTCA CCGTGTCTTG GCCACAGCCT GTGCCCTTCC TGTGTTACTC
122001 CATCAGCTCC TTCTGGATTG CTGACCTCTG CTCTAACCCAC TGATCGTTCA
122051 TGACAAATTTT GCTACCCACC TTCTGCAGGT GACAGATCCT TCTGCCTCAG
122101 AAGGGGGAGT GCTACTGTCC TGCTGTCTTA GAGCTGAGGG AGACGGACAC
122151 CACTCTCCCC GGTAACACTA GATTCTCAGG AATAGATACA ACACCTTCCA
122201 AACTGCAGCT GACACCAGCT GTACATTGTA ACAAGACTTT TAAGATTTAG
122251 GAATGTCAGA GAGATATTAC CCACAGCAGT TACATCACAT CTGCTTACAG
122301 TCTGGCTGTT CTGGAGCCC AGAATTCCAG GCCTGTTCCA GGGTGTTCAA
122351 TTGAGCTGTG TCCTTGACCT GCCTCGAGGC AGCTGAAGCC AGCTTGCCCT
122401 GACCTCCAGG AGTAGCTGTT GCAGGCAGGC AGCTTAGCTC AAAATGAGAG
122451 AAATATGGC TAATTTAAAC AAAAATGAAA ATAATTTTAA AAAGGATATT
122501 GGATAGCTAC CAAATCCTTG GGATGGTTGG AAACCCAAAC TGGGAAGGTA
122551 CCTTGTTAAA AACAATGACC AAATCACACC ATGGAAGCTGG TCCCGAGGA
122601 AGCCACTGCT GTGTCTGCCG GGGCATATAC AGGGCGGTGG CCCCTGGATG
122651 CTGCTGCAAG AACCATCCTT GTGACTGCTC CTGGAGTGGG GCATACCAAC
122701 ATTGGTACCA CCATCCCTGG AATGGCTTCC ACAGGGTCCC TGTTCCTTTA
122751 TATAACATCC AAGATATGTC TGCTCCTGCC TGCCACCCCA CCTCCCATGG
122801 AAGCTCCCCG CTGATGCTTT CACTTCCATC TTGATCAAGG GCAAGGTTTA
122851 CCTTCCATGC CCACCCACT CAGGGTTCCA GTCCCTCACC CTCTGTCCGA
122901 GGACCTAGGA GGATCCAGGA CTCTTGAGAG CTGGGCTGTG CACAGGTGGT
122951 GAATCACCAG CAGAAAGCTC TGCATCTAGT CTCTTCTCTT TGGCCTCCAG

FIGURE 300



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123001 ACTGGACGTT TTGCTTCCCA CCACCCACCC CCCGCAACCG GAAGACTCTA
123051 GGAAGATCTC GTCCCTCCCA CTGTACTTTT GCTCCAGGCT GAGTGGCCAT
123101 TCCGCCTTCT CTCTGTCTGT GTTCCTAACC CGGTCTTGCC TACTGTCTGG
123151 AAGAGGAGAA AGTGGTTCTG TAAGTCTGCC TCTGAGAATC TCCACACCTC
123201 TTTTCAGAAAT GGTCTGGGGA GTGGCGGGTG CCAGTGAGAC GAAAGAGGAG
123251 GACGGAGGAC AGAGGACTCT TAGATGACTA CTTCAAGGTT TAACCCTGTT
123301 ACATCTGCAT GGGTGTGGTT CAAAGTCTGA ATTATGTCTT TATGGCTGGG
123351 AAAGCCTGGG TCACATGCTT GTCTCCTCAT AGCAGGAGAG GCTGGGAAAG
123401 TCAGTAGGTG GTACATTGCA GCTTCTGTAC TGGGAGGAGG TCTCTGTCTT
123451 TCACCAAACCT AAAGAAGGAT GTTCAAATTA TTGGTGGGCA AAAAGAATGA
123501 CAAGGATCCT CTGACGTGGA CATGCCCTGT GATCACATTA GCTCTGTTTG
123551 GTCACAGCAT GATAGTGGAG TGGCTTGGGC GACCTATGGC AGTATCATTG
123601 ATAATCATTT ACCATACACC ACAGGCTGAG CGTCACCAGG GTTGATCCAA
123651 TTCCATTTTC TAATCTTTCT CCTAACATGG GGTGAACATC AGGAGGCCCTG
123701 GAGATCTTCT TTTGTTGCTT TTAGATTCTC AGTTTCTGGT CCTCTGAGAA
123751 GAACTGTTCA AACTGTTTCT GCATATCTCT ACTAAACACT TTGCAGGAGC
123801 AATGGAATCT AGAACTGCAT TTTAAAGAGA ATACTCTTGT AAAGGAAATA
123851 GTATCTACAG AGATGCAACC CTACCAAAGG GTGGGGCACT GTTGACTACT
123901 TTATCTTATG GAGCATGTGT CCCTGGAGTC ACAGCCTTGG GATGCCTACA
123951 TCTGCTTTCA TTTGCATAGC TAAACAGCCC AGTCTCTTCA TGAAAGGTAA
124001 TAGTCTACTT TATTCATTAC ATTTAGCTCC ATGAAAGAGT TTGCATATAA
124051 CTTAATTGTT TTAAGAGGAA AAAATGTACC AATTAAAAGC CAGGACATTT
124101 ATTATGCATG TTCAGCAATC AAAATAGGCT TCAGTGTAGC CTTCTATTTT
124151 TTTTTTTCTT TTTTGAGACG TAGTCTCACT CTGTTGCCCC GGATGGAGTG
124201 CAGTTACATG ATCTCGGCTC ACTGCAAGCT CTGCCTCCCC GGTTCAGCG
124251 ATTCCCTGCT CTCAGCCTCC CAAGTAGCTG GGATTACAGG TACCTGCCAC
124301 CACACCTGGC TGATTTTGTG GTTTTTAGTA GAGACAGGGT TTCACCATAT
124351 TGGCCAGGCT GGTCTCGAAC TCCTGACCTC AAGTGATCCA CCTACCTCTC
124401 GGCCTCCCAA AGTGCTGGGA TTACAGGCGT GAGCCACTGT GCCTGGCCCA
124451 GTGTAGTCCT TCTAAGCAA TCCATTCTAA TCAAATGAAG GAACAGTGCT
124501 CCTCTTTAAT AATCATAAAT AAGTGATAGA TGAATAAGGA AATGAATCAT
124551 GTATGCATTT ATTTGTCCAC AACACACAAT TGGAGCTGGC ATTTCTTGGA
124601 GGCATTTGTA TAAAACTTAG ATGAGATCAC GTCCCTTAGG ATGTCAAGGT
124651 ACTTGCCCTG ATTCTGCCAT GAGGCCTCCA ATGAAACTT TGTCAGGAGT
124701 AGAAAACAGC CAATGTATGT GAAGTCCAAG TTCATTGGCA CCTCCCTAGC
124751 CTCCTTGCAG GGTGTTTCT CTCCATCACT AATCCCTGT TTTGGATCAT
124801 TTGCAACAAC TCCCTTTACT ACGAAGAGGG AATCTTGAGG TATGAGCAGT
124851 AAATATGGAG ACTGTGGTAG GCAAACAGTT CCACAGTGTC ATGAGGTCCC
124901 TTTTACACTC TCTCACTCTG TGGATTCTTT CCCCTTACA ACACGTCTGA
124951 TTTATCACAA GCTGTGATTA ATTATTTCTT TGCATGACTG TTTAATGCTT
125001 GTCTCAATC CTCTAGCTC TGTGAGACTG GGGGCCATTT TGTTTACTC
125051 ACCGGTGAAG TTAGCTCAAT ATCTGACAGA GAGTAGGTAC ATGATAAATA
125101 CTCATTGAAA AAAGGAATAG AAAAGTTATA GAGTTCAGCT ATATTCATAG
125151 CTTGAAAAAT ATGCTAAAGG AATTTTCTCA TTTGTAGGTG TTCCTGTCCA
125201 GTTCCCTTAG TGCAGGCCTT CCCAGTGTAG GGTTTATTTT TGCATGACTT
125251 TCTATAAAGC TGTATTTCTT TCTTATCTAA CTTCTCGTTC CTAGTCTAAC
125301 TAGAAAGTTC ATGCATATCC CTTTCTCCCT TCTCTCCATT TTCTTTTAT
125351 CTCTGAAACA ATTAGGTACA CACGTAGCTG GGAAGCCTTC TTGTATGCCT
125401 CCAGAAAAAT TCTAGATCCC TCAAATATT GTTCTATCTC TTCTTTCTGT
125451 ACCCCAATTT TTTTCTCAAT TATGCTCTTA AATTATCCTT CTGAAAGATT
125501 TTCTAATTTT GTTTGCTTCT TGTGCTTTT TTCTCTCTA GTTCACACAC
125551 CTTTCTCTGT AAGATTTCTT AATGCTTATT TTATTATTAT TTATAGTTTT
125601 ATGTGGACAA GCATCCCTAG ATGCTTACAT TAAAGTATT TGTCTAAAAA
125651 AAGAAGGAAG GAAGGAAGGA AAGAAGAAAG GAAGGAAGGA AAGAAGGAAG
125701 GATAAATATG GAAAGAAAGA GAAAAAAGG AAGAAGGAAG GAAAGAAAGG
125751 AAGAAGAAAG AAAGAAAGA AGAAGAAAGA AAGAGAGAAA GAAAGAAAGG
125801 AAGAAGAGAA AGAAGGAAG AAGAGAAAGA AAGAAAAAGA AAGAAGAAA
125851 GAGAAAGAAA GAAAGAAACT GTCTATTGGG AAGGGCGTTG TTTACTGCTT
125901 ATCCAGCAAT ACCCAGGTAT TTGTATAGGT GTTGACCTAA ATCTATCTGA
125951 CCTTGAAGGC TGTCTTCAAA TCTTCTAACA GGCAAGATAA ATAAGGTCAC

FIGURE 3PP



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

126001 AGAAAAATGCA TACCTGTTTG TCATTTACCT TTATTCCTGG GCCTATAGAT
126051 AGTTCTTCTG TCTAGTAGCC TCTGGGCTAC TCATGGGAGT GGGGATAGGG
126101 ATCATATGAC AACTTTCTTC TCTTTTACGT GTTCTGGGTA CTCTTGATA
126151 CTGGTTCAG GGAACAGCTG CATAGCTAAG AGATGGGTGG GAAGGACAAG
126201 AAAGAGTAAA GTGTTCCTAG AGGAGCCAGC GAGGCAAGGG GTGTTTACT
126251 GACCTAGTCT GTTTTATGGC TACATGAGAA CCCTAACACT GCTCTCCCT
126301 TGCCCTGGCT GCTTTTCCAG GTTCTTGTC TCCCAGACA GCTCTAGCCA
126351 GGGCTCAGGG TTCCTTAATG GCTGTCCAA TCCACTCTTC TTTTAGCAGA
126401 GCACCCCTAG CAAGAAACCC ACTGTAATCT CACCCTACTT TTCTGCTTTT
126451 ACAACATGTC TTCCTTCCGG GTGAACATTC ACAAGCTAAA GAAGGGAAGT
126501 CACCTTCCCT TGAGGAGAGC TTGCTGAACA CCAGAGGATT TCACCTCTTT
126551 CCCCCTTCAT AATGGAATAA TCACTGAGCT TTCTGCTAGA ATAAAAAAT
126601 CATGGGCCGG GCACGGTGGC TCACGCCTGT AATCCAGCA CTTTGGCAGA
126651 CCGAGGCGGG TGGATCACTT GAGGTCAGGA GTTCAAGACC AGCATGGCCA
126701 ACATGCGGAA ACCCATCTC TACTAAAAAT ACAATCATT GCTGGCGCTG
126751 GCAGTGCCT CCTGTAATCT CAGCTACTCG GGAGGCTGAG GCAGGAGAAT
126801 CGCTTGAACC TGGGAGGCGG AAGTTGCAGT GAGCTGAGTT TGCGCCACTG
126851 CACTCCAGCC TGGGCGACAA AGTGAGACTC TGCCTCAAAA AAATAAAATA
126901 AAATAAAATA AAATAAAATA AAATAAAATA AAATAAAATA AAATAAAATA
126951 AAATAAGACA AAGGAGATGA TAAATTAAAG CCTAACATTA CTATATTCCT
127001 TTTATCTGA AGAATATGGT TTATATCTGT GGAAAGATGA GTTTCCTAAT
127051 ACAACCTCAG AATTAGATAG GAGATCACAA GGGGTAACTC CCAAAGGAA
127101 GGGGAGAGGA AGGGGCTGGG TTAACAGTTC CTGGGTCAGA ATAAGAGTTG
127151 AGTGCCATG TGTATTGCAG CAGGTGGAGC TCCCTATACA AGGAAAGCAC
127201 TGGGCGGAA AATGAGCATT TATCCTATTA GAATGGTCTT GTGCCTTCAC
127251 TCCCTGTGCA CTGCTTAGCC AGGGAAGTGT GCCCTTACAC CTTGTTAGCC
127301 AGTGGAAGAA GAGTGAGTCT ACCTTTTAGC TGTCTGTAGC ATTGTTACTG
127351 TAGTATTATT GTATGCTTCT GTTTATGATG GTGGAGAGGC CATTGAGAT
127401 GGAGGCATTG TTCATCATGC TGCTGAAATT TGAGTAGGAT AAATTTAGAA
127451 TTTGGATAGG TGAGCAGCTG GGAGGGGCAT CTTTGGGAT TGTGAGGAGT
127501 TACTCAGTTG ATGTGGCTCA TCAGCAGGTG TCCCATCTC CTTACCTTTC
127551 CATGGGCTTT CTTTCATGCT TCAACCAAAG AGAAGGACCC TTCTTCAGTT
127601 AAGGATTTGT CTGGATGTTT TCTACATGTG GTGTGATCGC TTATGAGTTT
127651 TCCTGCCTCT GAGACCTACC TTCTGAATGC CTGACTGACA AAGATTTAA
127701 GGTGCTCCAT TACAGTTGGC ATGCTTTTAT ATTCCACATG CCAGAGCTAC
127751 AAGAATGTTA TTATTTCTCT TCTTCTCTCC CAGGTGATAT ATTGAGTCAC
127801 CTAGGTGTCA TTAGGTACTA AGCTTTGCCT TCAATATCTA CCAGGGTGGG
127851 GCACCATGGA CAGTGCCACA AAGACCTTTT CAGACAAAGG CTCAGATCTT
127901 CCTGCTGGAC TTTGTGTGCA AGAGGAAGGA ACTTTTCTCT TTCTTTTTC
127951 CCCTTCTCTC TCTCTCTCTC TCTCTCTCTC TCCCTTCCCT CCTTCCTTCC
128001 TTCTGTTTCT TCTTCTCTCT CCTCCCTCCT TCCCTCGAAC TGCCATGTCC
128051 CTTGCAACTA GAATGGTCCC TGACATTTAA GGTTTTAAAT AATTATGTGC
128101 AGAATGAATT AAATGCCAAA TCTTGTGTTT CAATAGCGTA TTATCTTCAA
128151 ATGTTAACAG CAACCAGTTT TTTAGAAATG AAACTTTTGG AAAATTTTAA
128201 TTAAAGTCTT CCTGCAGTGG AACAGTTGAT TTTTTTTTTT TTTTTTTTTT
128251 TTTTTTTTTT TTTTTTTTAG TCGGAGTCTC TCTCTGTTGC CCAGGCTGGA
128301 GTGCAGTGGT GCAATCTTGG CTCGCTGCAA CCTCTGCCTC CCGGTTCAA
128351 GTGATTCTCC CTGCCTCAGT CTCCTAAGTA GCTGGGATTA CAGACATCTG
128401 CCACCATGCC CAGCTAATTT TTGTATTTT TAGTAGAGTT GGGGTTTCCC
128451 CATGTTGGCC AGGCAGGTCT TGAACCTCTG ACCTCAGCCT CCTGAAGAGC
128501 TGGGATTACA GGTGTGAGCC AGCATGCCTG GCCTGAGTTT TTATTATTTG
128551 TGAATTTTAT TTTTTTCCAT CCCAGATGCA CCTATATTGG TAGTCTAGTG
128601 ATAAAAACAA TTTACCCATA TATACCAACA TCTTTTCAA GAACCTTGCA
128651 TAGTGAAACC AGCAAAGTAC TGAAGTGGCC AGTCTGTCAT AGGTGTCTTG
128701 CAACATGACT CAGAGTCAGA AGCTGGATAT AAACCTTTTT CTGTGTGTGT
128751 ATATATGATC CATTTGTGTA TTCGGCTTTT GAGTGGGACT TTTTCAGTAG
128801 GCTTCTTGAA GGTTCACCTT CACTATTCTC ACTGATGTGT GCTTACAGCA
128851 TCTCTGCCAT GGAGATTTTA GGCAGAGAGT GTTTAAAAGC TCTACTCATA
128901 GTTTATAGAA TTGCTAGTGC CACAAGGCCA TTCATTGTGG ATGATGAAAT
128951 TATTAGTTAT AAGTGAACCT TCTAAATAA ATCTTGAAG AAAACATGTT

FIGURE 3QQ



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129001 ATAAGAAAAT GAAGTCAGTC CTCCTACTAG GCAGTTCCCA TCATCTTTCC
129051 ATTTTGAGAA ATTATCTCA GTTCAGATGT ATTACTATGG TGATGTGTTT
129101 GCATTTCAAC AAACCAAACC AAGCCGTAAA CTGAGCTCTG CATGTTTAGC
129151 TTCTGTCTTA GGATTTTAC CGCAGTGTCT TTATTCTTGA GTAAAATCCC
129201 CGACATCTCG GCTAGAAATC ACAATGAATA AATAATTTCC CAGCCAGACA
129251 AAACAATCTG AATTGCTAAT CTCAGAATTC TAAGAAATTA CATAAAGATG
129301 CAAACAATGG GGATTAAAGA GGGGGTAAAA ATTAAATGAA AAAATAGCCC
129351 ACAAGAGAAT GGAATATATC ATGCTCTCCA AAATAACATT GTGGAAGTAA
129401 ACAAAAACAG ACAGAGAATT ATGCTTAATG AGAATTGGAC ATGTGGCTTA
129451 GCCCTCTGAG GCCTGAAACA AGTAAACACT TCCCGAATTG TCAGTCCATA
129501 CATCCCTCTC TCAAAAGAGA GCTCTTAGAA CTGGCTCCCT CTCCTCCTGT
129551 TTACGAAGCT TACTTGTCT TTGGAACAAT TGCACATATA ATTTTAACAA
129601 CTAATGAAC TCTACAGGAG ATGGGTTTTG AGTACTTAAA AAATTCCTAT
129651 AGTTTGATC AATCAGATAC GGGAGATAGT TTTGCAAAAT ACTGTTTGTG
129701 TAAAGAGAAG GGAAGAATC GCGCTCTAGT CTAACCAATC AACAAAGTGT
129751 GAAAACACGA TTTAGACAGA AGTACAACGA CCATCCTATC AGTTCTACCC
129801 AAATATCATA TCAGACCATC TCTTCCCTGA TAACAGTTTT GTTAGCCTAA
129851 GGACACATTA GCTCAGTTAG ATCTGGGCTC TCACAGAGCT TTCTGCTAGC
129901 GGCTCTGCTT ACTGGTAAGT AAGCCATGCA ATTTTGCCTA GCAACCCAC
129951 CGTGGAAACA CAGCTCCATT CTGTAAGTGG CAGGGGGATG TGGCAGGGAG
130001 GCAGGGAGAG TAGGTTTGT GCCTCTCAGA ATCCCTCTGC AGCTGGTTCC
130051 TGACATCGCA AACGTTATCT GCAATTCTTG GCAGTTTCGG AAGGATGATG
130101 AAAAATGGGA CGGGGAGGTG GCTGAGCCTG GGGTTTTGGA AGTAGGATGG
130151 AATTAATTGG AAGGCAAATA AAAAAGCTTC CAAGATTGTG AGCTGCGACT
130201 GTCTGAGAGC TCAAACAGAG GTTGGCAAGA GGAACCAAAG GAGAATGAGG
130251 ACATTTTTTG TCATTGACAA TGAGGTATAC AATATATCCA GGAAAGGACA
130301 ACCAGCAGCG ACCTCCTGAA GCTAAACAGA GATTATCTTA AGCCACATAT
130351 GAGGGAACAT TCCTCAATGG CAAAGAGAAG CATTAACCTT GGGACTGTCT
130401 ACGTCTAAGG AAAAATTTGA GCATTTACAT TAAAATGGCC TGTAAACAAG
130451 CATTGAATAT TAACCAGGCA CTGTGCTAAG TGTTCGACA CTTGTTTAAAT
130501 CTTCCAAACA ATCCGATGAG GTGGGATTTC TTATCTCCAT TTTATAGAGG
130551 AAAAAAATA ATGCACAGAG AGGTTGAGAA ACTTGCTTAA GGTCACTCAG
130601 CTATTTAGCA GTGGGGTTGG GATGTGTCTC AGGCAGTCTT TCCCTAGACT
130651 CTGTGCTCTT AAACACTACT ATGGTTTTTC AGCAGCAGTG AACAGTTACA
130701 GGGCTAATGG GGATAAGAAA ACTGAAGATC ACCACACGGC ACATGAGATG
130751 GTTTGTGATT CCATTGTGAA AGCTGCAGTT TAAAATGTTC AATTAAGGCA
130801 ACTTTTTTTT TTTTTAAATA CCTAGAGGGC AGCAAAAACA TGGGTATCTA
130851 GAATAACAGA TATTGCTAAA ACCTTACGCC CACAGCACTT CTTTTATAG
130901 CAAAGTATGG GTATACACAT ATTTTCATAC ACCTACACAC ACATACACAT
130951 GCAAGACGCG CATTTCTTAA GTCCCTAAAA TACCCTGATA ATTTAAATGCT
131001 CCAAACATTC TCTGAGTGTG ACCCTTGAT GTCTAGGAGA AGCAGCCCAG
131051 GAACACACTT GTTAGCCGGG GCAATGAGTA GTGGTGAAAT GTTTACCTTG
131101 CTGATAAAGT CTCCAGTAGA TGATGCAATT AAGATGCCAC GATCTAGCCT
131151 TTGTTATACA CCTCCTGTG TGCCGTCAA CAAATCCACC GCTGTCTTTC
131201 CCCATCTTCC CTCCTGCCCA TCTCCTGAAG TCCAGGAACG TCTCCAGCTT
131251 CCTACGTACT TGCAGTCTCT TTTTGCCAAC CTCAACCTCA TTTAGATTGC
131301 AATTACATTC ACATCTTAAT TTATGACTTA ACAAGCATCT CACAAACATT
131351 TAATTCATTC TAACCTCACT ATGCATTGGA GGAGGAATAT TTGAGGAGGA
131401 ATGGTACTCC CATTGCCAGC AATTAGATTG ACTTAATGAT CTATGGCGAA
131451 ATCTCCTTTT GGGCTTTGAA CTTTTCATAC ATTTCTGCAA ACAAACCTAG
131501 GCTAATTAAA GTAAGTTCCT GGATTCTCAG AGGGGCTTAC CTGCCTTCAC
131551 AAAATCCTCC TGTAATATCC AACATGGAAA TTTATGAAAT AGACAAAACCT
131601 TTCCCTGCAG TTTTCAGGTA ATTTATCTTG TTACGACACT TTCATGTGTG
131651 GAAAAGTCGA TATTTTCATA TATAGTTTCA ACAATATCAA TAAATGTGAA
131701 TTTTTTTTTT AGATGGCTTC TCTGAGGAGA TTAGGAGGGT TTCTATATCA
131751 AAGCATAGAT CAAATTATTT TTCCCTGTTT CCATTTTATA TACCAGATGC
131801 CTTCTTAGGA GTTAGAAAAG TACCTCCTTT TTACAAGGAA GGATGGCATT
131851 TCTTTAGCTT TTCCTGGACA GATCACCCTG TGACCATTTT TTATCTCAG
131901 TCTTCCTTCA CAGAAGGGAC AGAGGACTGC CCATTTTCAG CAGGAGTTAG
131951 TCTGATTTCT TCTGTTAGAT GCAGACGACT TTGTTTGACA ACTTCTTTG

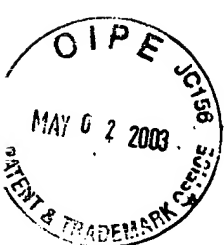
FIGURE 3RR



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

132001 GGTGTGGTGAA TTGTTGAATT ACTTGAAAAG CTGTTTCCGT TGTTAAGCAC
132051 TGGACTGAGA ATTAATTACA TCAGAATTCT AATCTCGGCT CATTAGTGGC
132101 ATCATTTTAT GCAAGTCCCT TAACCCCTCT TGGCTTCAGT TTTGCATGTG
132151 TAAAATGAAG TATATAAAGC AAAGGTCTCT CTGTGCTTGG TGCGATGAAG
132201 AGGATGCAGG TCTCATGGTA CGGATTTCCT ATATTGATTG CCCCCAATGT
132251 GGTGTACGTT TGCAGAAAAT TCATCTAGGC AATGTAGAAA GGCCATACAT
132301 TCTGGTGTTA AACACATCGT TCATATATTT ATGCTAGTAT ATGATACCAG
132351 GGCCTCCTGA TGACAGTCTC CAGCACCAAT TCTGAGAATT GCGAGGATTT
132401 TTCAGCTTAG AGTTTTCAG CTTAGAGTCA ATTCCAGTGT CGCCTTCAGC
132451 ACATCCAAAG AGAATATGAC CGATGCTACC AGTCCTGCTC CTGGACTCCA
132501 CTGGTATGAT TCCTTTGCCC CAGTATCAGT CTAATTCCCA TTCTAGATGC
132551 TTTTTTCTTA ATGACCCAAC AACTGACTCC TTCAGGAGCT GGCATGAGAT
132601 GAGATTTGTT TGCAGAGATG TATAAAAATT TCAAAGCCCC AAAGGAGATT
132651 TCACCACAGA TCATTAAGTC CATCTAATTG TCGTCCTACT ACCCATTTAG
132701 ATGGGGACCC GTTTATGCTA ACTCCTATCC TGTCTCTTGT GAGTGATACA
132751 GTCAACACAC ATGATGATCA CAGCACCAGC TCAGACAGGT GTGTTTTAAA
132801 ACAAAGTGT GTTATAAATG TACAGCCTCA GCAGGGAAAA TGTGGGGGCG
132851 AAGAAACACA CAAATACTTG GCTAGAGTCG GTCACAGGTG AAGATGGGGA
132901 TGACTGTGTT TTCCGTTTCA TCCAAACATT TTGGCCTGAC TCAGATAATT
132951 TTTTTCCTAG CATATTCTGT TTGACACAAG GGAACGGTG CAAATCCATC
133001 ACCACCATTG TGGAAAGAGC TCCAAACTCA TTCTCACGAA TGGTGGATCA
133051 GTAATACTAC ATGACAAATG GTAGCATTTT TGGGAAACCA TTATATTTGC
133101 ACCAGTGAGA AGTCAGAATC AGCATTTGGG CTGCAGTCAT GGAACCATGC
133151 AAGAAACATT CAAAGCATTG GCTAAGCAGG ATTTTTTTGT TTGTTTGACC
133201 TGGTGTCCAC GAACAGGCTT CAGGGAGCCT GAGAACTCC TAGACCACCTT
133251 GAAAAATTCT GAATGCACTT TTCTAGGAAA GAGTTCACAG CGTTCATCAA
133301 ATTTCTCCCA AGCAGCCAAT GACCAGAGAA AGGTTAAAAG TCACTGACAC
133351 AGTACCGTTT TCTGTGCATC TATATCCTGA ATCCAGGGTG ATGCCGCTGA
133401 CTTGCCTATC TTTCTCCTTT GGTCTTCCTA GAAAAAGCAA GTGAGTCAGA
133451 CCAAGATCCG GGTCACTCTA ACCATCCTGT TCATCTTGGC CGGCTGCATT
133501 GTGTTTGTGA CGATCCCTGC TGTCATCTTT AAGTACATCG AGGGCTGGAC
133551 GGCCTTGGAG TCCATTTACT TTGTGGTGGT CACTCTGACC ACGGTGGGCT
133601 TTGGTGATTT TGTGGCAGGT AAGCACCTTG GGCAGGCCAG GCACTGGGGC
133651 TCTGGCGGGA AAAATAATCT GTTGGCTGTG CTTTTCGCAA TCGATAAAAG
133701 ATGTTGCGGG AGAAGCAAAT GAAGATGACT CAGTGTCACT ACTGCTGTGA
133751 AGAGGCTCAT TTCAAATCCC TAGTCCTATG TAATATAAAT ACCATAGGTT
133801 TTTTCTGCT ATGAAAAGAA AGCCAACCCT TTCCTTCTCA GGATGCTTAT
133851 TTCCCTTATC GTCACACAAA TTATGCAAGA CTAAAGTGAA TTTCTCATTA
133901 AATCTTGAAC TTCTGAATTG AATTAACCT CTCTAATCCA ATGATAAAGG
133951 CTGTGTTAGG AAGTGGCACA TAGGAACTC AGATGAGATT AGCATAGAAT
134001 TTGGTCTGCA GTGACCTGCA GGTTCAGCTT CCTGACTCCC AGGTGAGAGC
134051 CATTGTCTCT GCAAACGTTG TCCTGCACAT GCCCAGATAC AAAGCTGAGG
134101 ACTTTGGTGA CTATGGGGAG CTGAGAACTG CCCAGAGGGA ATATAAGCTC
134151 ATGGATTATG CAGGAGTGTA TATACAAGCA ATAGCCTTCC TTGTAAAAAT
134201 AAATGTGGAT GAGCTATGTT TAAGGAAGTG AAAAAAAAT CATCAATTTT
134251 ATCTAGGGCC AGGGAAATTG CAAATGAAAT GAGATTTAGT TTCATATGTG
134301 CACCAGTTTC CCAAAAGTGT GGTAGAAAGG TACGGATAGA AGGAAGAGGC
134351 CATCCTTCTC TTTTCTAAT AGGATAGTTC TAGATGTTCA GACAAGTGAT
134401 CAGTTTCTAC TACAAGAAGT GAACACTTTG ATCAAACAAC TCTATCATCT
134451 GTCACAAGTT TGAAATGTCT GGATGGAGTG TGTGTGTGTG TGTGTGTGTG
134501 TTTCTTTTAC CAGTTCCTGG TGAAGTGGCA GCCTGACCTG AGCCCTAAGC
134551 AGACTGTTTT TTTTGTITT TGTTTTTGTT TTTGTTTTTT TTGAACAGGG
134601 TCTCCCTCTG TTGCCAGGC TGGAGTGCAG TGGTGTGATC ATGGCTCACT
134651 GCAGCTCGG ACCTCTGGGG CTCAAGTGAT CATCCACCT CAGCCTCCTG
134701 AGTAGCTGGG ACTACAGACG TGTGCCACCA TGCCCTGGCTA TTTTATTATT
134751 TCATTTTTTG TATTTTTCTG AGAGATGGGA TTTAGCCATG TTGCCCCAAGC
134801 TGGTCTTGAT CTGTTGGGCT CATGTGATCG GCCTGCCAAA GTGCTGGGAT
134851 TACAGGTGTG AGCCACTGCA CCTGGCCAGA CTGTTCTTGT TTGGCGTGTG
134901 ATCCAGCAG TGTCTTGATT TCTCCATGGA ATACTGTGCA CATCAGGAGG
134951 ATGGGTTCTG GTCTCTGGGA GTCTGGCAA CAGGAAATTC TGGAAAGAGAT

FIGURE 3SS



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135001 TGCTGAAGGC TCATCAATAG GGGCATGCGT GCCTCCCTGT TAATTTTATA
135051 ATACAAATAA CTGGCAGAGT GGTTTTGTAG CTCTTCCAAT TGGGCAGACA
135101 AAGACTGAAT TCCACTTTGT AGAAATAATA GGGTTTTTTT TCCCCCTCCT
135151 TTTTATTGGT TAAGGACTAA GAATTGCAAA GTGACTAAAT TTAGTTTTTT
135201 TTAGCTTTTA ACTAAAAATT GATTTTTAGT CAGTGTGACT AAAAAATCATT
135251 TACAGAAAGC CTGTAGCCTG GGACTCTACC CATTTTCCCC TTACGCACAG
135301 TGCTCAACCA TGGATGTCTA GTTAGTGGCC TCAAGCTCCG AAGAGAGACT
135351 GTACAGAGAA ACTGAGAAAA GTAAGAGGAA CAGTTATAGA TGTATTCCAG
135401 TTAATCCCTT GGCATCATCC GTAGCCGGTC CGTGGGAAAA CTCAGTGGTG
135451 TTTCCAATCT AAGGCAACAA CATGTAGTGG CAGCTGGAAT TTTGAACTAT
135501 TTCACAAACA TCTTTAAGTA TCCAAAGCAT AACCTGCAGT GGGTGGTGAT
135551 TTAGAGCTCT CTGGGATAGC ACTGGGCTGT CCTGAGGACT GTCTATTATA
135601 AGATACCTGT GACAGACACA GATCTCTAAC CAATGGCTCA GTTCAGTCTG
135651 TTAATCTGAG GCACAAATAG CAGAGGCCTG GGAGTGAGAT TTTTAAAGTG
135701 ATGCTTTTAT TATTTGTAT CTACCATGGA CTGAGCACTT AGTACAAACT
135751 AGTACTTTAC CTTATCTTTA CTTACCTAGT AAGGGCACAA CCTACACAGT
135801 CCCAGGCATC CACAGTTTAA CTGCCCTTGT CAGTGATTAC AGAGCCATAT
135851 TTCCTTTGTC CTGAGGTTTC TG TAGACCAC GGTCTCTTAA AAGTCACAGT
135901 GCTGACTGCA GTTAGGCCAG ACCCCTTCCA AGCTCCAGTT TTCCGAGCTT
135951 ACACAGACCA ATCTGGAGAA TGCATGCCTG AAAAGACTGG AAGTTTATCT
136001 CTATCTTTTG GACACAGTCT GCGAGTGATA GGGAAGGTTG CCCAATCATT
136051 GGAAAACGAT ACATTAACAA GAGTTGATGG TTGCTGTGAT TCGACATAGT
136101 ATGAACCTCA CTAGAAATGT AATCAGATCA TTGATCCTGC AGGATTGATT
136151 GCTGATTTAT TTTGCAGCTG ACTCACTTTA GGACAGCCTT ACAATATTTT
136201 GCAACTCTGT CTGGGAGCAC ACACAGAACT CCGAATCCAG ATAAGCAGCT
136251 CAAAAAGGGA TACTTAGAAG GGTGTTGACT GCCTGCTTCA TTGTTCTTGT
136301 TTCACTAGCG CACCCTAGTG ACCATCTTTG CTGGGTAATA GTGACTTGCA
136351 AAGGTAATA TTTACTCCA GATAGCCAC AGGAGAAAGC TACAGATTTC
136401 TCTGGCGTAG CACAGAAACG AAATGAACCT CAAAACCAC TTACTGGTGC
136451 GGGAACTCAG ATCGTATCCT ACAGCTCTAA TGATGCAGGA GAGAGTTGTC
136501 TGAAAGGAAA AACCAAAAGC AGCTGCACCA AACCAGAGG GCGTTGGCAC
136551 AGAGAAGTTG GAATCTAAC GTTAAGAAGT GGCAGCAGCT GTCGAGCCTC
136601 ATGGTCTGCT GCGCTGTGTT GCTGATTGGG TTTGAGCTTG TCGAGAGGAG
136651 CCACAGGTCA CATTTCTTGC CCAGCTGCCT TTGCCGTAAG ACTCAGTGCC
136701 GCTAGATGTG GTTACAACCT TGGTCTGGTG GGAAAGTCTG TAATCACTCA
136751 TCACCTAATA CGATAGTTAC CAATCCATTG CTAGTATCTG TCATCTTAGA
136801 AATGGCCACT GCCTGCTTCC TTAGGCAATA GCGTTTCCCA GAGAGAGATT
136851 GAGGCTGATG TCCGTTATTT CCAGGAGCTT CCTCACTTCT TTAGGACGGT
136901 GGGTTGGGCT TGCAACCTGT TTTGCATGGC TGCCTCCAGC AGTGTCTGTA
136951 GGAAGGTTAG AATAAATAGG CTAATTATTC AGAATAAATG ACTGGTCCTT
137001 TCAATGGAAC AGCCAGTCAA TGCAATCAGG CAACTGGCCA ATTTGGTTTG
137051 ATGGATTTT ACTGTAATCC TTATTTATAA AATAAAGGGA TTGGCCTCAA
137101 AGGTCCCTTT TAGTTCTAGT TTATGGTGAC TCTAATTACT CAGCCTAACT
137151 GACCCTTTGG AGTAGCACTA TGTAAACACC ATTCTCAGT TAGCATTAAG
137201 TCACTATTGC TTGCATCAAA ATCCCAGTAA TGCCATTAAA GCTAATTTTA
137251 CTTTCACACA TCCACTTGTC TCTTAGTAAA TGTATGGGTG CTTAAGATGG
137301 AAATGGTTCC AAGAATTCCA AACCATAGGG GGTGGTATGA TTATATTGTA
137351 TTTTTATTAA AATAAATTTA GAGAAGTTTA AGAAAAAACA ATGACAACCA
137401 GGCCTGATCT GTTGTCTGT AGTTCAGAGT TATTCATCCT TAACGCTCAG
137451 GTCAAGCATT AGTAGGTCAA GTTGGCCACT GCGTTTTTTT ATTTCTGGTA
137501 TTAAGGTTAG TGGTCAAGAA TCGAGGGAAG TAAAGCCTTA AGTTAGGCTT
137551 TTTTGGGTAA GGGATGGGTA CCCCCCTTGC CCTCTAACC CGGTCCACCT
137601 TGTACACAGC AAACCTAACA GCTGAGTGTT AAACAATGAT GGATGACGTC
137651 TTCACTACAT GGAATGGAAT ATGTGTTCTC TGCAAAGACC ATATGCTAGA
137701 TCATGGTTAA AGTAACATTT GGTGTTTTC AGGGGGAAAC GCTGGCATCA
137751 ATTATCGGGA GTGGTATAAG CCCCTAGTGT GGTTTTGGAT CCTTGTGGC
137801 CTTGCCTACT TTGCAGCTGT CCTCAGTATG ATCGGAGATT GGCTACGGGT
137851 TCTGTCCAAA AAGACAAAAG AAGAGGTAGG ACCCCTTCTT AACCTATATGA
137901 ATGTTCTCTGA GAACAGATGA GCTTGTGTCC AGAATTGCCT GTCTCTGTCC
137951 TGTGGGCTGG AGTGTTCCTG GCTCGGTTTT GCAGGGGGAG CGGGGGGCGG

FIGURE 3TT



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138001 GTCATAGGCT TCCTCATGTT GAATCAGTCC TTCAAAGCTA AGGAGAATAG
138051 AATACAGTTA TTTCTGGATT CTTTTTTTGG CAGGTGAGAA AATATGGTGA
138101 TTCGTTTACC AGCCCATAAA TCCTGGAAAA ACTAGTAAAC AACAGCTGAT
138151 TTTAAAAAAA TGAAATGAA AATAAATAGG AGAGGTAGAC TATGGCTGAG
138201 TGTGTGTGTG GGGGGGTGCA GCCTGTCTCT CCGGTCTCAG GGTCTGTGCA
138251 GAAAGGCAGT TGAACGCCAA GAATCTTTCC TGATTCACTA AGAAACTGAA
138301 ATCATCGAAC ATTGACCAGC TACGGGGAAG TGAGCCCAAT GGGCCTCTTT
138351 CACTTATCCC CTCTTGGTTG TCACATCCAT AGAGACAAAT ATACATCCCT
138401 GAGGAAGGGC CGTGCACTGA ACTTTACATG AAGGGAAAGT AAGGAAGACA
138451 TATGAAGGAA AGATAGATTT TGTGATTAAA AAATAAATAT TCATGTAGCT
138501 CTCTTAGGAA GAGAGGAAAA GAAAGGAGGA AGGCCAAGGA AGGAGAAAAA
138551 AAAGAGCTAA AAGAAAGGAA GGGAGATAAG AAAAACCATA GAAATAGAGG
138601 GCCAGCTCTT GTTTGCTTCA TTCTGTATAA AAGGCCCCAG GAGAAAGTTG
138651 CTGAATGGAG AGATTTCCCA CATCAGTTTC CTGGGCCCAT ATGCTAATTT
138701 TCCTGGTTTA TATAAGTAAG CCAGGAAAGT AAGCAATGCA ATTTCCAGAC
138751 CGGTTCCCCA GACAGCTAAC TGACCTGCTG AAAATCAGCT ATAACAAAAG
138801 AGAAGGGAAC AACATGAATA TTGACTTTCC TGGATGCACA AATTTGAGTT
138851 CCTCATTGTC AGAGGGAAGC ATGGGACTTA TACTGTCTGC CCTGTTTATT
138901 AAGAGCCAAG AAATTTGGTG CTGATCTCTA GGCAAACTC CACTCTAAGG
138951 AGGCCTGTTT TGTGGGCTTT GGCAGAAATG GCCGTCTTCC TGCACCCTGA
139001 CTGGGGGAAG TGGGTTACCA GGTGCCCTGG AGCATCTTCT TAAACCAGGG
139051 AAAGCCCCAC AGCACATGAC CATAGCATGG CCCAGATAGG GTGGCCACCC
139101 ATCCCAGTTT TCCCAGGACT GAGGGAGTTC CTAGGACACA GGACTCTGTT
139151 TTAACACTGG GACAGCTCTA GGCAACTGG AACAAAGTTG TCACCCTGCC
139201 AGGATAGAAA ACCAGAAAGG CAGGGAGGGC AGAAGGCCTG CTGAACATCT
139251 GCTGTGCCCA GGAAGTGTG AGGTGCATTT CCTTGTCTCA GGTGAGCTAT
139301 ATATGGTCAC TCAAGTGATG GTTGGGGGAA TGAGGCCATG CAATTGATAA
139351 GAGAGAGCTG GAGCCAGGC CTGTCCAAC CCACATTTTA ACCTCTCTG
139401 CAGGATGCCG TCCCCCTCTC TTAAAGTCAC CATCTCCAAA TCTGAGGCTT
139451 CTTGGGGTTG CCCACCACGT GTGTCTCCCT GAGCCACCTT ATTTACTAGC
139501 CAATTAGGGA TGGGTGTCCA GGTGGCAGAA GTACTAGGGC AGAAGGTAGC
139551 ATTTGCACCT CCCCCCTGGG CATGTGCTCC GTCACCTCCT GGCCTCCCCG
139601 TGGGGACACC CGAGGGCTGT GGGTGTCTGG AGGCCAAGGC AGGGAGGCAT
139651 TTGTGAGCAT ATTGTTGCTC TTCTGTCTCT TGGCCAGGTG GGTGAAATCA
139701 AGGCCCATGC GGCAGAGTGG AAGGCCAATG TCACGGCTGA GTTCCGGGAG
139751 ACACGGCGAA GGCTCAGCGT GGAGATCCAC GATAAGCTGC AGCGGGCGGC
139801 CACCATCCGC AGCATGGAGC GCCGGCGGCT GGGCCTGGAC CAGCGGGCCC
139851 ACTACTGGA CATGCTGTCC CCCGAGAAGC GCTCTGTCTT TGCTGCCCTG
139901 GACACCGGCC GCTTCAAGGC CTCATCCCAG GAGAGCATCA ACAACCGGCC
139951 CAACAACCTG CGCCTGAAGG GGCCGGAGCA GCTGAACAAG CATGGGCAGG
140001 GTGCGTCCGA GGAACAATC ATCAACAAGT TCGGGTCCAC CTCAGACTC
140051 ACCAAGAGGA AAAACAAGGA CCTCAAAAAG ACCTTGCCCC AGGACGTTCA
140101 GAAAATCTAC AAGACCTTCC GGAATTACTC CCTGGACGAG GAGAAGAAAG
140151 AGGAGGAGAC GGAAGATG TGTAATCAG ACAATCCAG CACAGCCATG
140201 CTGACGGACT GTATCCAGCA GCACGCTGAG TTGGAGAACG GAATGATACC
140251 CACGGACACC AAAGACCGGG AGCCGGAGAA CAACTCATT CTGAAGACA
140301 GAAACTAAAT GTGAAGGACA TTGGTCTTGG ACTGAGCGTT GTGTGTGTGT
140351 GTGTGTGTGT GTTTTAAATA TTCACACTGA GACATGTGCC TTAAACAGAC
140401 TTTTGTGCTC AAAATTACAT AGCATTGAAG AATATATTTT ACTGTGCCAT
140451 AAACAATGTA AAGCTTGCTC TGCCAAAAGG AATCAGAGAA CAAGAACTTC
140501 ATTTTCAATA GCAACGACAG GACACACCAA GAGTGTCCGT GCACGTAGCC
140551 GGTCTGTGCC GTACATGTTA AGGGCATTTT AGTGGCAGTG CTGTACCCCT
140601 GGGCAGTGCT ACCTGGGCAC ACACGTAGAC AAGGGCAGCT ATTCCTTAGA
140651 CCAGCTCTCT GAAAGAAACA GGTGTGTCTT TTTAGTGGAG TCGTAGTAAT
140701 ATGTGCACAC ACAGAAAGGG ACCTGATTGG GTGGGAGCTG GTTATGTGTA
140751 ACTAGCGTTG GAGTTGACAT TTTGGCATGT GCTCTGAGCT TGAATTTTGA
140801 TACCAACCAT TCAGTGCATC ATACCTAGTC TTTCTATGCT CCAAATGAAT
140851 GTCTGTGGGG ACCTGAGAGC ACCTGGAATT TGTGGAAGC AGATCAGAGC
140901 ACACGTACGA AAAGGTGCAA TTGCTTTTCT CATGACAAAA GAAAAAAAT
140951 AATCACAAAC ACATCACACT GTGGATATCA CCTTAACCAA TGACAGAAGC

FIGURE 3UU



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

141001 CTGCTGAGTT TGGTCTTTCT CACAGGGGTA GGTAGTCCAC ATGAACTGGC
141051 GAGCAGTGGT GAAAACATGA CATCAACTGC TGCCTGGTTA AAGGCCAATC
141101 ATGCATTTTC CTCAGTGGGT GCAATGGTGA CAATAAACTG ATTTGGAAAT
141151 GTCCATGTAC TTTGGTTATA ACTTGTTTGT ATAAGAGGGG TAGAAATACC
141201 AAAACAATTG CCTTGCATGA TGCCAGTGGC TTGCTGTTCT GTCTAGCTGA
141251 TCCTACATTT TTACAAAAGT AGACATCCTG CATTTCTGAG ACACACTGAG
141301 GAGGACCATG GCATCTTTCC ATCTCAGGGC TTTTGTGCCC TTGGGTGTCT
141351 TAGGGTAGAC ATAGTGATAA GATCCAATCT CGCTATCTCC AAACAAAAG
141401 AAAATGTACC CCTTGTACAG TAAGCTTGAA ATGTTTTTAT TGCTTGCAGC
141451 GTAAGTGCCA TTAATTCAT TTAACAATGA TACTTAGAAA TATTTAAAT
141501 ATTTCAATTT ACTTTTATGT TTGGGCATTC CTTTATCTG AAAAAGTCAC
141551 CACTGCTCCT TGCTTGTTC TACATCTCAC ATCGTTACT CACTAAAAC
141601 GGAACACCTT AGACTGATTG TTCCAGGCA AACGATAAGC TAACACATCA
141651 TAATTATGAT TGGTCTGTGA GGCTAGAACA TCCCGCAGAG GAAAGTCGGG
141701 GAATGGCTAG TCATAGGTTG CATGATGATT TTAAATGGGT TTGTATCAGA
141751 AAGGGGAAAA TACATACTCC TGTGTATGCC TCAGTCTTTA TCATAATTGG
141801 CTGGTTCACA GCTAGCTCTT TGGGCCACAC GTGAAAGCAT TTGGACCTGG
141851 CAACACCAGG CAGTTGCTGG TTATGGGTGT TCTAGGCTCA CTGCTACCTT
141901 TTACAGAGTT CACGGGATTT TACGTAACCTA ACCCGCAGTG TGGATTTACC
141951 AAAAGATCAC AGCACTAGCG GAGACTTCCA GAAACTGTCT CATGCTTTCT
142001 GACCTCCAGG GAAAGTTGTA CCCACGACAT CCTCAACCAC TGGTACCATG
142051 GAAGACCTGT CCCTGCCCAT TTCTCAAAAA TGCACAGCTC TTCCCTGCCT
142101 GGAGCACATG AAGTCCCATC TCCCTGTCCC CAGACCTTTA GGCTCTGTTG
142151 AAGTTCTGGC ATTGCTTATG AGACCCTTCC TGTCCAAGGA AGGTCTAAGT
142201 CAACTCCTCC ATTGGACTGG AGATGAGGCT CACTGGTGAC ATCCTGTGTC
142251 GACTCAGTAA TAAATAGTCA CTTGGGAGGC GATGTTTATG CAGGTGTGGA
142301 TGTGAGTTT TACTATGGGA ATCATTCCAG CCTGACAAAA TGTGTTTAA
142351 GGAATAGGTA GATAACTGGG ACTTCCTCTG TTATTCTAAC AAGTCGAAGC
142401 TTCCTAATTA AACTGTCCAT GGATCTCACT TATTTGGTTT CCACTCTGTG
142451 TTATCTGGTA CGTTCCTTGT AGCAGTGTGT TAAATTTCCA GGCCCTACGG
142501 CCAAATCTGG CAGAGGCTTC CCTCTCATTT ATCCAGTGCC TTCTGTGGGC
142551 CAGGCACAGG ATTAGGCACT TTATGAACGT CAGCTCATTG AAACCTCACG
142601 ACACTATGTG GGAAGTATTT GCAAACCCAT TATATACACA AGGACACAGA
142651 GGCTCAGGGA AGCTATGTTA TTTATCCAAT GGCACACAGC AAGAAAGTGG
142701 TAGAGCTGGT ATTCAAAGTC TGACCAAAGT CTGCTTTCAA CTTCACTACA
142751 GTGTCTGTGT CATGCATCCT TGTGATTGTG TGTGTTTGTG TGTATGTGTG
142801 TCTTTCTAGC TTCATGGACA CAGCTTACAG ATGTGGGGAG CAGATATGGT
142851 GGAATCTCCA CCACCAAGAG GGCACAAGGT CTTTGTGTAA ACATGGCTCA
142901 AAGGGTTGCC CCTGCAGACA CCTACTGTAC ATTTATTTGG TTTTGGAAAT
142951 TTTGTATGTG GCACCCTTTA AAAAATGCCC TTTGAAAGCA CTCTTTTGCA
143001 CTTTACTTGC TAACTTTGTA GAAACTCTGC ATACAGCAGG AATAAAATAG
143051 TTCAAAGCAC TAAGCTGCAT ACTCTACCAA ATGGAACAGG TGCATGTGTT
143101 GGTATGTGCA TAGATGCTTC CCCAAATGAG TCAAATCAGT CACACAGAGG
143151 GATCAAACAT AACCTTGGGC TGGGGGTGGG AAAATTTTCT ACATAACCCA
143201 TTCCCTGAGA CATTTGGCCA AGAATGTGAT GAACAAAATC AAAGAAGATC
143251 CTCTATGGTG ATTGATCGAT TAAATATGTG TGCAAAGTGT TTAGAAACCT
143301 ATGAAA (SEQ ID NO:3)

FEATURES:

Start: 3000
Exon: 3000-3051
Intron: 3052-62251
Exon: 62252-62601
Intron: 62602-84982
Exon: 84983-85100
Intron: 85101-98275
Exon: 98276-98436
Intron: 98437-133431
Exon: 133432-133618
Intron: 133619-137732

FIGURE 3VV



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

Exon: 137733-137875
Intron: 137876-139687
Exon: 139688-140305
Stop: 140306

CHROMOSOME MAP POSITION:
Bac accession #: AC026597
Chromosome: 18

ALLELIC VARIANTS (SNPs):

DNA				Protein		
Position	Major	Minor	Domain	Position	Major	Minor
981	G	C	Beyond ORF (5')			
1012	C	T	Beyond ORF (5')			
1990	T	G	Beyond ORF (5')			
3432	C	T	Intron			
4658	T	C	Intron			
4772	G	A	Intron			
7738	A	C	Intron			
9118	T	A	Intron			
9192	A	G	Intron			
9222	G	A	Intron			
9734	G	T	Intron			
9795	A	G	Intron			
9853	A	C	Intron			
10397	G	A	Intron			
11198	G	T	Intron			
11470	G	T	Intron			
11534	G	C	Intron			
11540	T	G	Intron			
11557	C	G	Intron			
11708	A	C	Intron			
11953	C	T	Intron			
11967	T	C	Intron			
12172	A	C	Intron			
12188	G	A	Intron			
13472	-	T	Intron			
13781	A	C	Intron			
14031	A	G	Intron			
14110	T	C	Intron			
14248	A	G T	Intron			
14676	T	C A	Intron			
14981	C	T	Intron			
16365	A	G	Intron			
16827	G	A	Intron			
17599	A	T	Intron			
18093	A	G	Intron			
18226	G	C	Intron			
18467	-	T G	Intron			
18511	-	A T	Intron			
19107	G	A	Intron			
19223	A	G	Intron			
20102	T	C	Intron			
21946	G	T	Intron			
22240	T	C	Intron			
22679	A	G	Intron			
23178	T	C G	Intron			
23370	T	G	Intron			
23583	A	G	Intron			

FIGURE 3WW



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

24159	G	A	Intron
24307	C	T	Intron
24493	T	C	Intron
24822	C	T	Intron
24946	-	A	Intron
24947	-	A T	Intron
24959	T	C	Intron
25321	T	G	Intron
27280	C	T	Intron
28062	G	A	Intron
29033	G	C	Intron
29302	C	-	Intron
31093	T	C	Intron
31454	G	A	Intron
31834	A	G	Intron
31936	C	T	Intron
31947	A	T	Intron
31980	A	G	Intron
32156	T	G	Intron
32161	A	G	Intron
32436	A	G	Intron
32490	T	C	Intron
32526	G	A	Intron
32893	A	G	Intron
32900	G	T	Intron
33087	A	G	Intron
33474	C	G	Intron
33474	C	T G	Intron
33474	C	T G	Intron
33741	C	G	Intron
34043	G	A	Intron
34053	C	T	Intron
34297	A	C	Intron
37209	T	C G	Intron
37475	G	T	Intron
38476	A	G	Intron
38486	C	T	Intron
38576	A	G	Intron
38810	A	G	Intron
38825	A	C	Intron
39317	C	T	Intron
40519	A	G	Intron
41468	A	T G	Intron
41468	A	C G	Intron
41565	A	C	Intron
41625	A	T	Intron
41921	G	C T A	Intron
42152	C	A	Intron
42498	G	T	Intron
42715	T	G A C	Intron
42776	T	C A	Intron
43320	G	T C	Intron
43341	A	T	Intron
43424	A	G T	Intron
43509	A	G T	Intron
44584	C	T	Intron
46250	A	C T G	Intron
46287	C	T	Intron
46566	A	C T G	Intron
46653	G	A	Intron

FIGURE 3XX



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

47153	T	A	Intron
47171	C	T	Intron
47216	A	T	Intron
47484	T	C	Intron
47668	G	A	Intron
47698	C	T	Intron
48029	A	T	Intron
49334	A	G	Intron
49680	C	G	Intron
50056	A	G	Intron
51020	A	T G C	Intron
53750	G	T C	Intron
53753	A	T C G	Intron
53799	C	A T	Intron
53917	C	T G	Intron
54056	C	T	Intron
54402	G	A	Intron
54493	G	A T	Intron
54749	T	C	Intron
55396	-	C	Intron
55397	-	C	Intron
55703	A	C	Intron
55783	G	A	Intron
55806	A	C	Intron
57433	G	T	Intron
57699	T	A	Intron
60173	C	G A T	Intron
62216	C	A	Intron
62830	G	C	Intron
63395	G	A	Intron
64019	T	-	Intron
64030	T	-	Intron
64104	C	A G T	Intron
64166	G	T	Intron
64408	A	G	Intron
64786	C	T	Intron
65120	A	G C	Intron
65703	C	T	Intron
66930	C	G	Intron
66951	T	G	Intron
68094	G	A	Intron
68124	A	G	Intron
68787	A	G	Intron
69668	C	A	Intron
69701	A	C	Intron
69773	C	T	Intron
70257	-	T	Intron
70261	-	T	Intron
70268	-	T	Intron
70941	G	A T	Intron
71359	G	T	Intron
72550	C	T	Intron
75313	T	A	Intron
75541	G	T	Intron
75957	T	G	Intron
76415	A	C	Intron
77872	T	A	Intron
78058	A	C	Intron
79799	A	G	Intron
80598	G	A	Intron

FIGURE 3YY



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

82609	A	G T	Intron			
83645	A	G	Intron			
83756	C	T A	Intron			
84687	A	C	Intron			
84761	C	T	Intron			
84911	-	T	Intron			
84921	-	T	Intron			
85786	C	T	Intron			
85903	T	-	Intron			
85906	T	-	Intron			
85908	T	-	Intron			
85913	T	-	Intron			
85932	A	-	Intron			
86085	C	A	Intron			
86585	T	-	Intron			
86596	T	-	Intron			
86601	T	A	Intron			
89478	-	T	Intron			
89488	-	T	Intron			
91631	A	G	Intron			
91898	G	C	Intron			
93506	T	C	Intron			
94409	T	C	Intron			
94689	T	A	Intron			
94856	G	A	Intron			
95303	A	G	Intron			
95373	G	A	Intron			
95657	A	T	Intron			
96312	-	A	Intron			
96315	-	A	Intron			
96329	-	T A	Intron			
96370	C	T	Intron			
96372	C	T	Intron			
96439	T	C	Intron			
96468	G	A	Intron			
96501	A	G	Intron			
97217	A	G	Intron			
97449	A	G	Intron			
98167	A	G	Intron			
98430	G	C	Exon	225	V	V
98846	T	C A	Intron			
99326	C	A	Intron			
99514	C	T	Intron			
99680	G	A	Intron			
99879	T	C	Intron			
99971	A	G	Intron			
100895	G	A	Intron			
100927	G	C	Intron			
102805	G	A	Intron			
103462	G	T	Intron			
103811	G	A T	Intron			
105461	G	C	Intron			
105981	A	G	Intron			
106495	G	T	Intron			
107077	G	A	Intron			
107431	T	G	Intron			
107671	A	G	Intron			
108826	C	T	Intron			
111310	T	A	Intron			
112035	T	-	Intron			

FIGURE 3ZZ



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

112038	T	- A	Intron
112066	G	T	Intron
114098	G	A	Intron
114293	A	-	Intron
114413	-	C T	Intron
114414	-	C	Intron
114692	C	T	Intron
115696	A	T	Intron
116153	A	C	Intron
116213	G	A	Intron
116507	G	A	Intron
116796	G	T	Intron
117142	T	A	Intron
118270	G	C A	Intron
118495	C	T	Intron
119314	A	T	Intron
119740	T	C	Intron
119899	G	A	Intron
119990	G	A	Intron
120169	A	G	Intron
120519	C	T	Intron
120812	A	G	Intron
121053	T	C	Intron
121246	G	A	Intron
121475	C	T	Intron
121715	T	A	Intron
122390	C	A	Intron
122606	C	T	Intron
122767	T	C	Intron
122957	C	A	Intron
122963	G	A	Intron
124458	C	G	Intron
125449	G	A	Intron
126753	G	A	Intron
126957	-	T G	Intron
126962	A	-	Intron
128567	T	- C	Intron
128567	T	- C	Intron
128599	T	G	Intron
128843	G	A T	Intron
130388	T	C	Intron
131191	G	C	Intron
132702	C	T	Intron
133422	G	C	Intron
133447	C	A	Exon
133956	T	C	Intron
134132	C	T	Intron
136253	A	T	Intron
137206	G	T A	Intron
137313	C	A G	Intron
137335	G	A	Intron
137951	T	C	Intron
138206	G	C	Intron
138207	T	G	Intron
138210	-	G	Intron
138805	G	C	Intron
140339	-	T	Beyond ORF(3')
140340	-	G T	Beyond ORF(3')
140360	-	T	Beyond ORF(3')
140366	T	-	Beyond ORF(3')

233 Q K

FIGURE 3AAA



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

141183	A	G	Beyond ORF (3')
141545	A	T	Beyond ORF (3')
142316	C	T	Beyond ORF (3')
142436	T	C G	Beyond ORF (3')
142719	G	T	Beyond ORF (3')
142779	T	C	Beyond ORF (3')
142931	A	C	Beyond ORF (3')

Context:

DNA
Position
981

TTTGTTTGATTTCTATGTCTTAGCCATCCTCCCAGTCCTAGTAGAGAGAGGGCAAAGTGTG
GTTACAGAGTCCAGGGAAGATGGTTCTGAAGCACCCGGGAACCTGCCTAAAGGGCTGAAG
AGTCAGAGTAGCACCATCAGATTGGTACCAGTTTTCCTGAACGGGGTTTGCAGAGAATT
CAGGGCTCCAGCCTGGGGTGCCTGTGACAGCCCAGTGACAAAGCACTACCTTTCCACAC
GACCACAGCGGACCTCTGTAGGTCTTGCTCTTGGACTCAGAAACCTTGATGTGATAGTGA
[G, C]

GGATGGATGGTGAGAAAGATGCTGCTGACACAGGGCTCCCCAGAAGCCTCAAGGTGCCGT
AGAGTAGCATGCAACTTAGAGATCAGCTGCTAGTGTGGGATTTTAGGACCCAGCTGGCA
GGCATAGGAATGAGCTGGGCAATTCTATGCGTAAGTAAAGGCAACAATCTAACAGG
ACCTTATGGCACTAGATAGTAAGCCCCATGAAGGCAAGATCTCTGTCTTGTCTCTGCGCA
TATGGCCAGCACATAGCACAGTGATGGCACTTGGGAAGGGTTCAATATATATGTTGAATG

1012 CCAGTCCTAGTAGAGAGAGGGCAAAGTGTGGTTACAGAGTCCAGGGAAGATGGTTCTGAAG
CACCCGGGAACCTGCCTAAAGGGCTGAAGAGTCAGAGTAGCACCATCAGATTGGTACCAG
TTTTGCCTGAACGGGGTTTGCAGAGAATTAGGGCTCCAGCCTGGGGTGCCTGTGACAGC
CCAGTGACAAAGCACTACCTTTCCACAGACCACAGCGGACCTCTGTAGGTCTTGCTCT
TGGACTCAGAAACCTTGATGTGATAGTGAGGGATGGATGGTGAGAAAGATGCTGCTGACA
[C, T]
AGGGCTCCCCAGAAGCCTCAAGGTGCCGTAGAGTAGCATGCAACTTAGAGATCAGCTGCT
AGTGTGGGATTTTAGGACCCAGCTGGCAGGCATAGGAATGAGCTGGGCAATTTCTATGC
GTAAGTAAAGGCAACAACAATCTAACAGGACCTTATGGCACTAGATAGTAAGCCCCATGA
AGGCAAGATCTCTGTCTTGTCTCTGCCATATGGCCAGCACATAGCACAGTGATGGCACT
TGGGAAGGGTTCAATATATATGTTGAATGAACAACAATTTTAGTAACCTTATCTGGAAG

1990 CGCTTTCCTCCGGGGGCCCCCGTGCCTCTCTCAAGCCTCCTTTCCAGCCAACGACCAGCG
GCCCCAGTCCGGCTGCAGGTAGCTGGGGAAGGGACCAAGCTGTGCCTTGGGAGCGAGCTT
CCCCGGGCGGGGAGAGCGCAGCAGATGCGGAGCGGTCCCAGAACAAAAGGCTCATGGCTG
GCACGGGCCTCCTTGGAGTGCAGCGGGGACGTGGGTTCGGGACTCAGGCGAGAGAGCCAG
ACGCGGGAGGAAAAAATGAAGTGAGAAAAGAGAAGGAGGGAGAGCTCAGGGTGAGAGC
[T, G]
GTGAGAAGAGGTGACCCGGAGGCCGAGGTCTGCGGCGGAGCCGAGCGGCCCTTCTCTCG
CCTCCTGCAGCGCCTTCCAGGCAACCAAGCGTGTCTCCGGCTGCAACTCCAGCAAGCGCG
CCGCTGCGCGCTCCACGCCCCGCGCCGCGCCGCGGAGCCAGTAAGTAGCGGCGCGCCCA
CCGCTCGTTCCCCGCCCCCTCCGCGGCTTCCCCGCCACCGCCACCGCTCCCGCCGCCCC
GCGGGCAAGTCCGCGACCGCTCCCGCTGCCCCGAGCCGGGTGCCGGGGGCTCAGCGCGC

3432 TGCTTCTGGCAGCGTGTGTCTTGAGGCTGGGAAATGCGCCTGGGAACTGCAGCGCGGGTG
GGAGGAGGGCGGAGGCAGCGTGGGTCCGAACCCAGATAGTGCCTGTCATTACCACATAA
TCATTGTCCCTCCTAGATTGTCTCAGATCTATTTAGATAGACCAAGCCGACTGTTGGT
TTGAAATTGCAAGTGTGCGGTATTTGCTTTTGACTTTGAGTGTGCGAGTGTGTGTGTGT
GTGTGTGTGTGTCTTTGTTTCTGGTGATCTTTGTCTCTCTGCGAGATGGGTGGGGTGCT
[C, T]
CCCCCTGGACCTGGAGCTGCGCCGATGCCCCGGGTGTCTCAGTGGGAAAGGTTTCTTGG
CAGCAAGTGGGGCTCGAGTTGCAGCAGCCGTCCCTAGGGGTGGGCGGTTCTCGCAGGGCA
TGCAGAATAATGGAGCCACAGGGCCTCCTGAGTCTTCGTTCAATCTTATTACCAACCT
AGCAGCTAGTTAGGCTCAGGTGAGTAGAAGCAGGAGGAGGGGTGGTTTGTGAGAAGGG
TGGGGCTGGCAAGGCATAGGGGAGGGGCACGAAGTGTGCCCGCCCAAGCAATGGTGTGGT

FIGURE 3BBB



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

4658 AGTTTACAGTGAGGGAGACAGACCTAAATCAATTCCATGGAGGAATGCATAATTCAAAGT
TTATGTATGCTCCAGGGAGAGCATCAGAGGTTTAAAGAAAGTGTCTGATAGAAGAGATTGA
CAAGGACCAGAGAAGGCTTCCCTGAGGACATGACACTTGGACTTAGGCCTGGAGGATGTA
TAGGAGTTAATTGTCTAAGGAGGAGGGGAATTGTTGCAGAAGAGGGAACAGCAAGTGCAA
AGGGCCTGAGGCAGAAGAGGTATGTGTATATGATGAACTGAAAGGAGGTTCCCATGGCTA
[T, C]
GGCAGAGTGAGTGAAGAGGTATTGCCTTTTTTAAACACCCAGGCTGTTATACTGTAAATA
CAGCAAAACCTTTCATTTTGTCTCTATTTGAAACCTCTGGAAATACGGAAGTGTGCCTT
GGCTTCTTTTTGGGAAATCCCTGAAAAATGTATTTATCCCTAGCAGAGAGCAAGAGGGCT
TGTGTTTTGAGATATGACTGGGGGATCCACAGGCGAGACGCCCCCTCCAAGCCCTGTGT
TGTGAGGTGGGTAGCATTGTGGGGTTGGAAGAGTATAGTATTTATCTAAAGCCAATG

4772 GATTGACAAGGACCAGAGAAGGCTTCCCTGAGGACATGACACTTGGACTTAGGCCTGGAG
GATGTATAGGAGTTAATTGTCTAAGGAGGAGGGGAATTGTTGCAGAAGAGGGAACAGCAA
GTGCAAAAGGGCTGAGGCAGAAGAGGTATGTGTATATGATGAACTGAAAGGAGGTTCCCA
TGGCTACGGCAGAGTGAGTGAAGAGGTATTGCCTTTTTTAAACACCCAGGCTGTTATACT
GTAAATACAGCACAAACCTTTCATTTTGTCTCTATTTGAAACCTCTGGAAATACGGAAGT
[G, A]
TGCCTTGGCTTCTTTTTGGGAAATCCCTGAAAAATGTATTTATCCCTAGCAGAGAGCAAG
AGGGCTTGTGTTTTGAGATATGACTGGGGGATCCACAGGCGAGACGCCCCCTCCAAGCC
CTGTGTTTGGAGGTGGGGTAGCATTGTGGGGTTGGAAGAGTATAGTATTTATCTAAAG
CCAAATGAAGAGTTTCAAGACGAGGAGTGACATGATTTGAGCTAAGTTTCAAAACAAGTGC
TGTGTGGCTCTTGTGGATGTAGGGGACCAGATACAATGGTAGCATGGGCCAGGGTGGTTG

7738 TTCTCTGTCTTGTATTATTGCCATAACCCAGTGCCCTGGAAAGTGCTTGGCACTCAATAA
CCCTTTGCTGAATGAATGGAAGGTTGGCAGGATGGACTGGAGAGGACTGAAGGCTTTATG
CCTCATGGAATTTGAGGACGCCCTCTCAGCTATAAATGGCAAAGTACAAATAAGGAGAA
GGAAGAATATCCCAAATAGTGGCATATCAGAAAGGACGCTGATATTTCCCACTTCCCTTGC
AAGCTCCAGCTCGCTCTAAACCTCCAGTGCGCTGTTTTCTTCTTTTCTCGTCTTTGACC
[A, C]
GAAGTAAGAAGGCTGAATAGAAGTGCAAGTGAGGGTGGATGGGTGGACTGATCTAGCCTGC
TGAAGATATGGTCAGTGTCCAATAAATAATTTGGCTCATATTAGCTATTGGAGTGTGGCT
ATTTTTAGGCACTTTAATCCACTTAAGAAAGAAGCAAAGCTCTAGGAGTGGAGGTGGATT
TTTTTTAAATGCTACACTTTTAGTGACACTTTAATGCAAAATTCTGGAGAAGCCATA
CCTATGTGCATAGCACCTTTTCAGTTTACAGAACACTTTTTAGGAATGATCTCATTTGTG

9118 ACATCTGTACTTTGGCTCCATATGAACCCACCTTAAATCTGATGCATTTAAAAATATA
ATATAGTCTTTCCCTCATTAGGAACTTCAACCACAACTGAGATATGGTGTGAAGTATA
TTAATATAGGCACAGTGAGCTAGTGATTTCTTTTACTTTTAGTCTACAGGAAATTAG
AGGAAGAGTTTAAATGATAAAATGGAAAGAAGCCATTCTACTGATAGCCAGTTAGGAAGTT
TCAGTTTGGACAGCTCCCTTGGCTGATGCAGAAAGGTGGATAAAAAATGACAATCTTTTTC
[T, A]
GTACTCTGATTCTTATAAAGGGCACCTACTGGATGATCCAGATGAGGTTAGAGTGAGTTA
GGGGCTTAGCTCTACATGGCATGTTACAGAATCTACCTAACCGTGGCACTAGGAGTGTG
GTCACCTGTTGGTTCCACCCACCTGGGTGATTTCTCTCCATAAGAATCATGGAGGTCAA
AGGGACCTTCCACTTCTGGGTCTGGTCTAGGGGTACTCTCAGCGGAGACTTTACAGTT
TATCTATGTCTGGCTCATTACCATCACCTACAATGGGGAAATAAAGACCTCATATTTACT

9192 CTCATTAGGAACTTCAACCACAAGTGAATATGGTGTGAAGTATATTTAATATAGGCAC
AGTGAGCTAGTGATTTCTTTTACTTTTAGTCTACAGGAAATTAGAGGAAGAGTTTAAAT
GATAAAATGGAAGAAGCCATTCTACTGATAGCCAGTTAGGAAGTTTCAGTTTGGACAGC
TCCCTTGGCTGATGCAGAAAGGTGGATAAAAAATGACAATCTTTTCTGTACTCTGATTCT
TATAAAGGGCACCTACTGGATGATCCAGATGAGGTTAGAGTGAGTTAGGGGCTTAGCTCT
[A, G]
CATGGCATGTTTACAGAATCTACCTAACCGTGGCACTAGGAGTGTGGTCACCTGTTGGT
TCCACCCACCTGGGTGATTTCTCTCCATAAGAATCATGGAGGTCAAAGGGACCTTCCACT
TCTGGGGTCTGGTCTAGGGGTACTCTCAGCGGAGACTTTACAGTTTATCTATGTCTGGC
TCATTACCATCACCTACAATGGGGAAATAAAGACCTCATATTTACTTGCTAGAACATCTA
TTTGTCAATTTGCAGCCACAGTTTAAAGAGTTTTTTTTTCTCCCTGTGAGTGTCTAGGACT

FIGURE 3CCC



9222

TATGGTGTGAAGTATATTTAATATAGGCACAGTGAGCTAGTGATTTCCTTTTGACTTTTA
GTCTACAGGAAATTAGAGGAAGAGTTTAATGATAAAATGGAAAGAAGCCATTCTACTGAT
AGCCAGTTAGGAAGTTTCAGTTTGGACAGCTCCCTTGGCTGATGCAGAAAGGTGGATAAA
AATGACAATCTTTTCTGTACTCTGATTCTTATAAAGGGCACCTACTGGATGATCCAGAT
GAGGTTAGAGTGAGTTAGGGGCTTAGCTCTACATGGCATGTTTACAGAATCTACCTAACC
[G, A]
TGGCACTAGGAGTGTGGTCACCCTGTTGGTTCCACCCACCTGGGTGATTTCTCTCCATAA
GAATCATGGAGTCAAAGGGACCTTCCACTTCTGGGGTCTGGTCCTAGGGGTACTCTCAG
CGGAGACTTTACAGTTTATCTATGTCTGGCTCATTACCATCACCTACAATGGGGAAATAA
AGACCTCATATTTACTTGCTAGAACATCTATTTGTCATTTGCAGCCACAGTTTAAGAGTT
TTTTTTTTCTCCCTGTGAGTGTCTAGGACTGAGTACTCTGAATTGAAAATGAAACCTGAC

9734

TTGTCAATTTGCAGCCACAGTTTAAGAGTTTTTTTTTTCTCCCTGTGAGTGTCTAGGACTG
AGTACTCTGAATTGAAAATGAAACCTGACTTCCTAATCCTCCATTAGGGTTGAAGGGAG
GGAGTAAGGGTCATAATCACTGGCAGGGGAGGGCACGGTCATGAGGGAGCATTGCATTCT
TTCTCTTGGCCATTCCCAGAGCCAGGGAGATGGGGAGGGGTGGGCATTGGAGGTAGTGGG
GATGAGGCTGGGAGATGGATGGGATTTAGGATTTAGGTTTGTATTACCAATAACT
[G, T]
CTAGTCTCATCACTTACCCTTTCCATGGAAGTAACCTTTGAAGCAGAGTGGAATGGTGGGG
AAACAAGATTAGAAAGGAAAACATAGGATTTACTGCCATACATAAGCCAGGTGATCACAG
GGAACCTTTTCTTCACTTCCCTCCCGTCCTTCTTTTCTTCACTTCCCTTGTTCCTCCCAACC
GCCATCCCCCAAATCCTGCAGAGTCTTGATCTCAATTGCTCTCGCTTGTGCAAAGGGTC
CTTCTCCCTTACTCAACTACCCAGTGTGGTGGGGCTGGTGGTATTACAGTTTAAAAAG

9795

GTAATCTGAATTGAAAATGAAACCTGACTTCCTAATCCTCCATTAGGGTTGAAGGGAGG
GAGTAAGGGTCATAATCACTGGCAGGGGAGGGCACGGTCATGAGGGAGCATTGCATTCTT
TTCTCTTGGCCATTCCCAGAGCCAGGGAGATGGGGAGGGGTGGGCATTGGAGGTAGTGGG
ATGAGGCTGGGAGATGGATGGGATTTAGGAGATTTAGGTTTGTATTACCAATAACTG
CTAGTCTCATCACTTACCCTTTCCATGGAAGTAACCTTTGAAGCAGAGTGGAATGGTGGGG
[A, G]
AACAAGATTAGAAAGGAAAACATAGGATTTACTGCCATACATAAGCCAGGTGATCACAGG
GAACCTTTTCTTCACTTCCCTCCCGTCCTTCTTTTCTTCACTTCCCTTGTTCCTCCCAACC
CCATCCCCCAAATCCTGCAGAGTCTTGATCTCAATTGCTCTCGCTTGTGCAAAGGGTCC
TTTCTCCCTTACTCAACTACCCAGTGTGGTGGGGCTGGTGGTATTACAGTTTAAAAAGA
GTTGCTTGAATAGAAAATGAAAATTTGGTGGGTGATGGAGAGCCTGGAAGTCACGGTAA

9853

GGGAGTAAGGGTCATAATCACTGGCAGGGGAGGGCACGGTCATGAGGGAGCATTGCATTCT
TTTTCTTTGGCCATTCCCAGAGCCAGGGAGATGGGGAGGGGTGGGCATTGGAGGTAGTGG
GGATGAGGCTGGGAGATGGATGGGATTTAGGAGATTTAGGTTTGTATTACCAATAAC
TGCTAGTCTCATCACTTACCCTTTCCATGGAAGTAACCTTTGAAGCAGAGTGGAATGGTGG
GGAAACAAGATTAGAAAGGAAAACATAGGATTTACTGCCATACATAAGCCAGGTGATCAC
[A, C]
GGGAACCTTTTCTTCACTTCCCTCCCGTCCTTCTTTTCTTCACTTCCCTTGTTCCTCCCAAC
CGCCATCCCCCAAATCCTGCAGAGTCTTGATCTCAATTGCTCTCGCTTGTGCAAAGGGT
CCTTCTCCCTTACTCAACTACCCAGTGTGGTGGGGCTGGTGGTATTACAGTTTAAAAA
GAGTTGCTTGAATAGAAAATGAAAATTTGGTGGGTGATGGAGAGCCTGGAAGTCACGGT
AACCTTTGCAGACGCCTAAAACACCAATATTTCATAATTTGACATGCAAGCTAGCAACAA

10397

CTTTCAGACGCCTAAAAACCAATATTTCATAATTTGACATGCAAGCTAGCAACAATTT
TACTACCAAGAAAATGAGTTTCTTATGTGCAAGCAGAACTCGAGATCCCCTAAATAATCA
CACACCAAAATATTAGCATGATAAAGATAAATAGTATAGCTTACTAAATTTAATGTGATA
TGAGCCTGACAGGCAGAATAGAGATGCTTGATATTAGGTGTGATAAAGGTTTGACATCC
AACATTCACTTACTTCGTCCTCTGAGACAAAAGTCAGGCACCAAGTGTTTAAGAAAAATT
[G, A]
ATGGGAGGAAAAGCTTAGAGATGAATAAAGTCTATTTATTAATTTATATTTTCTCTGAG
AACTGGGGAGTGTGTTACCCATGTTAACTGTGGACTAACCTGGGCCAGCTCCTGGATTCT
TACTGGCTAAGAATGTTGCTTTAGGCCAAAGGAATTTATCCCTCATGGTGAATTTGAGG
CCATATGGGAGGTGATTATGATAGATCTGTTTCGGCTCTACATTCTTACAATAACCTGA
AAGGAGATTAAATACATGTTATAGTCATTTAACCTAGACTCCAGGCAAAATGTCACCCTC

FIGURE 3DDD



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

11198 TCTTCATCTGCAAGATAGGGATAATTACAGCCATTACTTCTTTGGTTTGTTATGTGGATT
ACATAAAGTGATACATGCAAAGCTCTTAGAAGAATGCCGGATCATCATGAAGGCTCCATG
AGTGGTACCTGCCTTGTGCTGTTCTCACAGTTGCAGGAGGCAGCCTGTGAAGTCAGGGTA
GCCTCCAGCTCAGCCTCTTGAAGCATCTGGTTCAGTGTCTGGATCATCCAGGAAGTGGT
CCATAGCAGAGCACAACCCTCCTGATACTCTGGAAGACTCTTAGTATTCTTAGTTCAGAT
[G, T]
TAAACAACCTAGGCTGTCTGGTTAACTCAGAGAAAAGACCAGTGAAAGAACATGGCTTG
GAATCACAATATTTGAGTCTGAGTTAATGTACCCATTTTATTAGCAGTGTATCATAGTTG
ATTTTCGGCTGCTTTAATAAAATTCCATAAACTAGATAGATTATAGACAACAGAAATTTAT
TTCTCACTGTTCTGGAGGCTGGGAGGTCCAAGATCAAGGCACTGGTAGATTGGGCATCTG
GTGAGGGCCCACTTTTCAGCTCATAGATGGTGCCTTCTTGCTGTGCTTACACGGTAGA

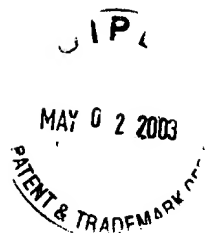
11470 GAAGACTCTTAGTATTCTTAGTTCAGATGTAAACAACCTAGGCTGTCTGGTTAACTCAG
AGAAAAGACCAGTGAAAGAACATGGCTTGAATCACAATATTTGAGTCTGAGTTAATGTA
CCCATTTTATTAGCAGTGTATCATAGTTGATTTTCGGCTGCTTTAATAAAATTCCATAAAC
TAGATAGATTATAGACAACAGAAATTTATTTCTCACTGTTCTGGAGGCTGGGAGGTCCAA
GATCAAGGCACTGGTAGATTGGGCATCTGGTGAGGGCCCACTTTTCAGCTCATAGATGGT
[G, T]
CCTTCTTGCTGTGTCCTTACACGGTAGAAAAAGTGATGGGTCTTTCTTGGGCTTCTTTGA
TAACTGCACGAATCCTAATCATGAAGGCTCCATGCCCATGACCTAATTACCTTCCAAAGG
CCCCATCTCCTAATAACATTACCTTTGGGGTTAGGATTTCAACATATGAATTTCTGGGGGG
ACACATTCAGACCATAACACTGTGTGAACCTTGGCCAAGTCACCTAACCTTTCTTAGCATT
AGTTTTCTTTGGGTAAAATAAAGATCACAATAACAACCACTTCACAGTTGCTGAGATGA

11534 AAGACCAGTGAAAGAACATGGCTTGAATCACAATATTTGAGTCTGAGTTAATGTACCCA
TTTTATTAGCAGTGTATCATAGTTGATTTTCGGCTGCTTTAATAAAATTCCATAAACTAGA
TAGATTATAGACAACAGAAATTTATTTCTCACTGTTCTGGAGGCTGGGAGGTCCAAGATC
AAGGCACTGGTAGATTGGGCATCTGGTGAGGGCCCACTTTTCAGCTCATAGATGGTGCCT
TCTTGCTGTGTCCTTACACGGTAGAAAAAGTGATGGGTCTTTCTTGGGCTTCTTTGATAA
[G, C]
TGCACGAATCCTAATCATGAAGGCTCCATGCCCATGACCTAATTACCTTCCAAAGGCCCC
ATCTCCTAATAACATTACCTTTGGGGTTAGGATTTCAACATATGAATTTCTGGGGGGACAC
ATTGAGACCATAACACTGTGTGAACCTTGGCCAAGTCACCTAACCTTTCTTAGCATTAGTT
TTCTTTTGGGTAAAATAAAGATCACAATAACAACCACTTCACAGTTGCTGAGATGATCAA
ATGAGACAAATGTGAATAAACTTCATAAACTGTTAAATTCAGACCAACATTTCCCAAAA

11540 AGTGAAAGAACATGGCTTGAATCACAATATTTGAGTCTGAGTTAATGTACCCATTTTAT
TAGCAGTGTATCATAGTTGATTTTCGGCTGCTTTAATAAAATTCCATAAACTAGATAGATT
ATAGACAACAGAAATTTATTTCTCACTGTTCTGGAGGCTGGGAGGTCCAAGATCAAGGCA
CTGGTAGATTGGGCATCTGGTGAGGGCCCACTTTTCAGCTCATAGATGGTGCCTTCTTG
TGTGTCCTTACACGGTAGAAAAAGTGATGGGTCTTTCTTGGGCTTCTTTGATAACTGCAC
[T, G]
AATCCTAATCATGAAGGCTCCATGCCCATGACCTAATTACCTTCCAAAGGCCCCATCTCC
TAATAACATTACCTTTGGGGTTAGGATTTCAACATATGAATTTCTGGGGGGACACATTCAG
ACCATAACTGTGTGAACCTTGGCCAAGTCACCTAACCTTTCTTAGCATTAGTTTTCTTT
TGGGTAAAATAAAGATCACAATAACAACCACTTCACAGTTGCTGAGATGATCAAATGAGA
CAAATGTGAATAAACTTCATAAACTGTTAAATTCAGACCAACATTTCCCAAAATGTGTT

11557 TGGATCACAATATTTGAGTCTGAGTTAATGTACCCATTTTATTAGCAGTGTATCATAGT
TGATTTTCGGCTGCTTTAATAAAATTCCATAAACTAGATAGATTATAGACAACAGAAATTT
ATTTCTCACTGTTCTGGAGGCTGGGAGGTCCAAGATCAAGGCACTGGTAGATTGGGCATC
TGGTGAGGGCCCACTTTTCAGCTCATAGATGGTGCCTTCTTGCTGTGCTTACACGGTA
GAAAAGTGATGGGTCTTTCTTGGGCTTCTTTGATAACTGCACGAATCCTAATCATGAAG
[C, G]
CTCCATGCCCATGACCTAATTACCTTCCAAAGGCCCCATCTCCTAATAACATTACCTTTG
GGGTAGGATTTCAACATATGAATTTCTGGGGGGACACATTGAGACCATAACACTGTGTGA
ACTTGGCCAAGTCACCTAACCTTTCTTAGCATTAGTTTTCTTTGGGTAAAATAAAGATC
ACAATAACAACCACTTCACAGTTGCTGAGATGATCAAATGAGACAAATGTGAATAAACTT
CATAAACTGTTAAATTCAGACCAACATTTCCCAAAATGTGTTCTGTGAGACATAAGCTA

FIGURE 3EEE



11708 AAGATCAAGGCACCTGGTAGATTTGGCATCTGGTGAGGGCCACCTTTTCAGCTCATAGATG
GTGCCCTTCTTGCTGTGTCTTACACGGTAGAAAAAGTGATGGGTCTTTCTTGGGCTTCTT
TGATAACTGCACGAATCCTAATCATGAAGGCTCCATGCCCATGACCTAATTACCTTCCAA
AGGCCCCATCTCCTAATAACATTACCTTTGGGGTTAGGATTTCAACATATGAATTCGGG
GGGACACATTAGACCATAACACTGTGTGAACCTGGCCAAGTCACCTAACCTTCTCCTAGC
[A, C]
TTAGTTTTCTTTTGGGTAATAAAGATCACAATAACAACCACTTCACAGTTGCTGAGAT
GATCAAATGAGACAAATGTGAATAAACTTCATAAACTGTTAAATTCAGACCAACATTTT
CCAAAATGTGTTCTGTGAGACATAAGCTAGACTCATCAGATACTCTGAGAAGAAAAGTGG
TGTCATGGTAAAGTCAGTTTGCAGGATGATACGTGCTCAGTCATTCTAGAGAGTCATCA
TGCACGTTAGCATGTTACTGTATTATTGTGTAACAAATAACCCCAACATTTAGTGGCTTA

11953 ACATTCAGACCATAACACTGTGTGAACCTGGCCAAGTCACCTAACCTTCTCCTAGCATTAG
TTTTCTTTTGGGTAATAAAGATCACAATAACAACCACTTCACAGTTGCTGAGATGATC
AAATGAGACAAATGTGAATAAACTTCATAAACTGTTAAATTCAGACCAACATTTCCCAA
AATGTGTTCTGTGAGACATAAGCTAGACTCATCAGATACTCTGAGAAGAAAAGTGGTGT
ATGGTAAAGTCAGTTTGCAGGATGATACGTGCTCAGTCATTCTAGAGAGTCATCATGCA
[C, T]
GTTAGCATGTTACTGTATTATTGTGTAACAAATAACCCCAACATTTAGTGGCTTAAATCA
ATATAAACATTTATTATCTCATAAGTTCTGTGGATCAATAATTAGGGATAGTTTAAATG
GGTGGTCTGACTAGGAGTCTGTCTGATTGTTGGTCAGATGTTGTCCGGGCTGCTGTCT
CTGATGGCTTACTGAGGAGGAGGATCTGTTTCCAAGATGGTGTGCTCATGTGGCTTGC
AAATGTGCTGCTGGTGTGGGGAGAGGGCTCATTTCTGCCAATGTGGGCTGTCCATGC

11967 AACTGTGTGAACCTGGCCAAGTCACCTAACCTTCTCCTAGCATTAGTTTCTTTTGGGTA
AAATAAAGATCACAATAACAACCACTTCACAGTTGCTGAGATGATCAAATGAGACAAATG
TGAATAAACTTCATAAACTGTTAAATTCAGACCAACATTTCCAAAATGTGTTCTGTGA
GACATAAGCTAGACTCATCAGATACTCTGAGAAGAAAAGTGGTGTGATGGTAAAGTCAGT
TTGCAGGATGATACGTGCTCAGTCATTCTAGAGAGTCATCATGCACGTTAGCATGTTAC
[T, C]
GTATTATTGTGTAACAAATAACCCCAACATTTAGTGGCTTAAATCAATATAAACATTTAT
TATCTCATAAGTTCTGTGGATCAATAATTAGGGATAGTTTAAATGGGTGGTCTGACTAG
GAGTCTGTCTGATTGTTGGTCAGATGTTGTCCGGGCTGCTGTCTGATGGCTTGACT
GGGGCAGGAGGATCTGTTTCCAAGATGGTGTGCTCATGTGGCTTGCAAATTGCTGCTGGT
TGTTGGGGAGAGGGCTCATTTCTGCCAATGTGGGCTGTCCATGGGATGCTTATGTGTA

12172 TCTGAGAAGAAAAGTGGTGTGATGGTAAAGTCAGTTTGCAGGATGATACGTGCTCAGTCA
TTCTTAGAGAGTCATCATGCACGTTAGCATGTTACTGTATTATTGTGTAACAAATAACCC
CAACATTTAGTGGCTTAAATCAATATAAACATTTATTATCTCATAAGTTCTGTGGATCAA
TAATTCAGGGATAGTTTAAATGGGTGGTCTGACTAGGAGTCTGTCTGATTGTGGTCAG
ATGTTGTCCGGGCTGCTGTCTGATGGCTTACTGGGGCAGGAGGATCTGTTTCCAAG
[A, C]
TGGTGTGCTCATGTGGCTTGCAAATTGCTGCTGGTGTGGGGAGAGGGCTCATTTCTCTG
CCAATGTGGGCTGTCCATGGGATGCTTATGTGTACTCATATGTGACATGGTGGCTGGCT
TCCCCAAGAACAAGTGATTCAAGAGAGAACAAGGTGGAATTGGCAACACTTTTTATGACT
TAACCTCAAAAATCACATATTGTTACCACCACCACGTTCTTTTCATTAGACGCCAGTCAC
TAAAGTTAGTCCACATCTGGGGAGTGGTGGGGTGATCACATTCACGTTGGAAGGGAGAC

12188 GTGTCATGGTAAAGTCAGTTTGCAGGATGATACGTGCTCAGTCATTCTAGAGAGTCATC
ATGCACGTTAGCATGTTACTGTATTATTGTGTAACAAATAACCCCAACATTTAGTGGCTT
AAATCAATATAAACATTTATTATCTCATAAGTTCTGTGGATCAATAATTAGGGATAGTT
TAATTTGGGTGGTCTGACTAGGAGTCTGTCTGATTGTTGGTCAGATGTTGTCCGGGCTGC
TGTCATCTGATGGCTTACTGGGGCAGGAGGATCTGTTTCCAAGATGGTGTGCTCATGTG
[G, A]
CTTGCAAATTGCTGCTGGTGTGGGGAGAGGGCTCATTTCTGCCAATGTGGGCTGTG
CATGGGATGCTTATGTGTACTCATATGTGACATGGTGGCTGGCTTCCCCAAGAACAAGTG
ATTCAAGAGAGAACAAGGTGGAATTGGCAACACTTTTATGACTTAACTTCAAAAATCAC
ATATTGTTACCACCACCACGTTCTTTTCATTAGACGCCAGTCACATAAGTTAGTCCACAT
CTGGGGAGTGGTGGGGTGATCACATTCACGTTGGAAGGGAGACATGTCAAAGAATTTGA

FIGURE 3FFF



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

13472 GTCCCTTCTTTTACAGATTCA GTGACTGACAAC TTAAC TTTCTTGGGTAAAGCCAGAAAA
AACAGGATGGCCTCCAGGCCGAGCAGTAGAAATGCTGGGGAATGGGGTGTCTGGTGTGTG
TCTGGTGTGTTTCTGCAGTGCCTGCAGGCCATGTGTCTGTATGGTGACTGAAACGCAAGT
CGGCATCCAGCCAGGATGGCAGGGACCGTGTGCCTGGGGGTGACGGCAAACACACAGTGA
GAAGCTGCTGATGGAGGGAGGACCGTTAGCACTCCTTGT CATATTTTGAGTAAACATTTT
[-, T]
TTACAATCTTGTTGCTTTTTCTGTACAGTCTTGAGAAAATGATTTCCAGGAAGCAGGATG
CATCCAATGACTTAGAGGTTCCCATGTTTCCAAACATTACATGCCTGGCTTATTCCTGAG
GCAGTTTGTATTCTGAAGGAAGTTTGGAGCTTCTGTGTTCTGGGCAGAGGCGAGTGAA
TATGTTTTCTTTTGAGTAGCACCGTGGACTTGAGAATGATCAGGAGCTGGACATTGTTGA
ATATGTCAC TTACTGCACAAAATGGCAAAGACAGGGTCTGGGACAGGGTGAGAGTGTGTT

13781 TTGTTGCTTTTTCTGTACAGTCTTGAGAAAATGATTTCCAGGAAGCAGGATGCATCCAAT
GACTTAGAGGTTCCCATGTTTCCAAACATTACATGCCTGGCTTATTCCTGAGGCAGTTTT
GTATCTGAAGGAAGTTTGGAGCTTCTGTGTTCTGGGCAGAGGCGAGTGAATATGTTTT
CTTTTGAGTAGCACCGTGGACTTGAGAATGATCAGGAGCTGGACATTGTTGAATATGTCA
CTTACTGCACAAAATGGCAAAGACAGGGTCTGGGACAGGGTGAGAGTGTGTTGAATGGAG
[A, C]
TGCTTGGGGCCCCAGTCACATTCCAGGAGCCAGCACTGATGGCATCTGTAACCATAGTAAC
CAAGAGTGGA AAAAGTCTCAGGATGCCAAGACGCCACTGTGCCCCCTTCTGGTTCTGTT
GTTTTCCCCTCTATTCTTTCATCCAGAAATTCCTCCATCCCTGCCCCCAACCACCTGAC
AAGGGACTGACTTTCAGGGTGGTTTCTACACTGGTGATTTTAAC TCTACTAACTCAAC
ACTTCTGTAGCCCCTTTTTCAGTTCTGAGATCCACAAGGATTCATTATGATCCAGACTA

14031 AAAATGGCAAAGACAGGGTCTGGGACAGGGTGAGAGTGTGTTGAATGGAGATGCCTGGGG
CCCCAGTCACATTCCAGGAGCCAGCACTGATGGCATCTGTAACCATAGTAACCAAGAGTGG
AAAAAGTCTCAGGATGCCAAGACGCCACTGTGCCCCCTTCTGGTTCTGTTGTTTTCCCC
TCTATTCTTTTCATCCAGAAATTCCTCCATCCCTGCCCCCAACCACCTGACAAGGGACTG
ACTTTCAGGGTGGTTTCTACACTGGTGATTTTAAC TCTACTAACTCAACACTTCTGT
[A, G]
GCCCTTTTTTCAGTTCTGAGATCCACAAGGATTCATTATGATCCAGACTAAGCCTCATGC
ACCTAATTTCTTCCGCTTTTCCATTTTACTGTGAAAATTGGTCCTAAGTCCTGTAGTAT
ACATACTCTAGACTTATTTACAGCTGGGCATAACAACGGTGGCTCATGGCACTCAAAGTT
TCCAGTAACACTCCTGCACTCACAGTCTGGTATAGATCATGAGATTTTTTAGATGTGTT
TTAAATGAACAGAGAAAGGCAATGAGGCACAGGAAAGAGAGCCGTGGTCTCTTGT TTGGA

14110 CCAGCACTGATGGCATCTGTAACCATAGTAACCAAGAGTGGA AAAAGTCTCAGGATGCCA
AGACGCCACTGTGCCCCCTTCTGGTTCTGTTGTTTCCCCTCTATTCTTTCATCCAGAA
ATTCCTCCATCCCTGCCCCCAACCACCTGACAAGGGACTGACTTTCAGGGTGGTTTCTA
CACTGGTGATTTTAACTTCTACTAACTCAACACTTCTGTAGCCCCCTTTTTCAGTTCTG
AGATCCACAAGGATTCATTATGATCCAGACTAAGCCTCATGCACCTAATTTCTTCCGCTT
[T, C]
TCCATTTTTACTGTGAAAATTGGTCCTAAGTCCTGTAGTATACATACTCTAGACTTATTT
ACAGCTGGGCATAACAACGGTGGCTCATGGCACTCAAAGTTTCCAGTAACACTCCTGCAC
TCACAGTCTGGTATAGATCATGAGATTTTTTTAGATGTGTTTTAAATGAACAGAGAAAGG
CAATGAGGCACAGGAAAGAGAGCCGTGGTCTCTTGT TTGAGATGTGGGTTTTGCTACTG
GTTGGAAAGTGAGGTGTGGCATGGCGCATGAGGGTGGGGAGAGGTGGGTGATGCTCAGGT

14248 CCAACCACCTGACAAGGGACTGACTTTCAGGGTGGTTTCTACACTGGTGATTTTAACTT
CTACTAACTCAACACTTCTGTAGCCCCCTTTTTCAGTTCTGAGATCCACAAGGATTCAT
TATGATCCAGACTAAGCCTCATGCACCTAATTTCTTCCGCTTTTCCATTTTACTGTGAA
AATTTGGTCTTAAGTCTGTAGTATACATACTCTAGACTTATTTACAGCTGGGCATAACAA
CGGTGGCTCATGGCACTCAAAGTTTCCAGTAACACTCCTGCACTCACAGTCTGGTATAGA
[A, G, T]
CATGAGATTTTTTTAGATGTGTTTTAAATGAACAGAGAAAGGCAATGAGGCACAGGAAAG
AGAGCCGTGGTCTCTTGT TTGAGATGTGGGTTTTGCTACTGGTTGGAAGTGAGGTGTG
GCATGGCGCATGAGGGTGGGGAGAGGTGGGTGATGCTCAGGT CATGTAGGGCATAGTAGG
TCTTACTTACTAAGGAACTCTTTTTTCTGAGAATAACAGGAATGCTTGATTGATTGGA
AGTGGGAGGATGACACAATCAGATTTTAAAGATTATTTAAATCGCTAATAAATCAAAT

FIGURE 3GGG



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Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

14676 GCATGAGGGTGGGGAGAGGTGGGTGATGCTCAGGTCATGTAGGGCATAGTAGGTCTTACT
TACTAAGGAACCTTTTTTCTGAGAATAACAGGAATGTCTTGATTGATTGGAAGTGGGA
GGATGACACAATCAGATTTTTAAAGATTATTTAAATCGCTAATAAATCAAATGATGGGT
TCAGCGAATGTTTGCAGAGGATACTTACTGTGTGACAGGCATAGTCTGGCCTTACCTGG
GGTATCTGTGTATTCTTGTAGGAATCCTACATAAAAGCTGTTAAATATTTTAAACAGAAA
[T, C, A]
AAGCTTTTCTTGACATCTTTGAATTATGACAACCAATTCCAAACTTCTGGTTGCAAATGG
GAGGTGTATCTTAAAGCAATGGCGATTGCATTTTCAATTTCTGTTCAATAAATGATATT
TTCCCTGGCTTTGTTACATGACCCTTGATTCTGTGATAAATTGCATATCTAGAGTCGATG
AATCAATACATGCAAACTGTGGTGCCTCGCTCATATTCTGTTATACTTCAGACGCCTT
TTGGAAGCATGTGGCTCTCAGTTCAGCATAATGCTCCTGATAAAATTGCCCTCCATAC

14981 TTTTCTTGACATCTTTGAATTATGACAACCAATTCCAAACTTCTGGTTGCAAATGGGAGG
TGTATCTTAAAGCAATGGCGATTGCATTTTCAATTTCTGTTCAATAAATGATATTTTCC
CTGGCTTTGTTACATGACCCTTGATTCTGTGATAAATTGCATATCTAGAGTCGATGAATC
AATACATGCAAACTGTGGTGCCTCGCTCATATTCTGTTATACTTCAGACGCCTTTTGG
AAGCATGTGGCTCTCAGTTCAGCATAATGCTCCTGATAAAATTGCCCTCCATACCCGC
[C, T]
GTCACTTTGTTCTCGGTGTGTCCAGAGGTATTGTAACATTGGGGTATTTCTCCTTTGACT
CTAATGGGACCCCTGCTAGTTGTGTTCTTGTGGCCTCAGCTTGGAAAGGCCTCCCAAAG
CCTGAATTAATGAAAGCTTCTGATGTGCCGATCCCTTTCTCTGGCAGGGTGAGAACGCAG
TTTCTATAGGAGCGTGAATGCCTGCTGCTCAGGCAATAATCTCTGCATTACGCCTCAGTA
CTAAAGACAGGCAGAGCAGACAGCCACAGGGGGTGGGATTTGAGGAGCCCTATAAAGTCC

16365 CAAAAAGAGGACAAAGCATATCTATGAACCCGTAATGCTAACCTTCATTATTCAACAGTG
ATGCTTATGGCAATGCCAACGGGTGTTGGGGCCTTTTATTAATTTTAAATTTTAGTTTTT
TATGTTTTTGAGACAAGATCTTGATTGTGCGCCGAGCTGGAGTGCAGCGGTGCAATCAC
AGCTCACTGCAGCCTCGATCTCCTGGGCTCAATCAATCCTCCACCTCAGCCTCCTGAGT
AGCTGGGACTATAGGCATGTGCCCCAGACTTGGCAAATTTATGCATTTTTTGTAGAGAC
[A, G]
GGATTTTGCCATGTTGCCCAGGCTGGTCTCGAACTCCTGAGCTCAAGCAATCCGCCTACC
TTGGCTTCCCAAAGTGCTGGAATTACTGGTGTGAGCCACCGTGCCCTGCCTGTGAGCC
TTTTTGCTATTCTCCCTCCTATGGGAAAAAGAATCGAGAAAGAGCAGTAGGCTCTACTAG
AGTCTGGAGCATATCGGTTCTGAGATTTAGATTAAATTTCTATGTCTGCAGCAAGTAC
AAATGTGAGTGATATTACAGCCTCTTGAAGAAGACATCTATCCATTTCTTCAGTGAATAT

16827 GAGCAGTAGGCTCTACTAGAGTCTGGAGCATATCGGTTCTGAGATTTAGATTAAATTTCT
CTATGTCTGCAGCAAGTACAAATGTGAGTGATATTCAGCCTCTGAAGAAGACATCTAT
CCATTTCTTCAGTGAATATTTGCCCGGAGTCTTCTTCGTGACAGGCACTGTTGTAGGCCC
TGGAGGTACAGCAATAACAAGACGAAGTCTCTGCCCTCCTGAACTAACCGTTTAGCCA
AGGCTTAGCATCTCTCACACTCAGGTCAACTTCTGCATTTTAGAAATCTGTTTCAGGCAC
[G, A]
CATTTGACAAGTAAAGAGGTTCCAAAAATACATTAATAAGGATGAAATGAGGCCATTCT
GATATTCCATTGCTTGGCAAAATGCTTAATATGGGAATTTAATATGGAATGGGTGCTGA
TGCTGTCAAAGGTGGTGACATTCTGTTAGAAAATTCAGTGATTTCAAAGAAGGCCTCAGA
GCTGCCTAGTTTGAATTAGATATTTGAAGAATCTGTGTTAATTAGGACTCTGTGGCTT
GTGCATGTATACTGGGACGAGACTGGAGTTTGTGTCTCTCCCATGATGATGGCATGTAA

17599 TGTCTTTTGAAGTAGGAGGAAATTAGGACTTTTGTCTGTTATATGCCTTGCACTCTCTGG
CCTTCTCTGGGCTGCTGGGGCAGAATGAGGCCAACAGAGAACCACGGATGCCAGTCTGGG
TCACAAGGGCTTAAGGAAGCAGCAGATGGTTGGACTGACTGGGGTGTCCATTAAAGATCC
AGGGGTAGTGAGAGTCTTACCTGGAGTTTGGAGCCGCACTTCCATTGCCAGGACTCTCAG
CTGAGTGGCTGGAAGAGACCTGTAGGAGCCATCCTTCCAGTATCTATCAGAGGTTTCTGC
[A, T]
CTGTTTAAAGCTCGTCTAGTGATCGAGGGAACCTTGACTGGGGGTGCTGATGATTATTA
ACAGTGCCATACTCCACGGCTGCAGGTGGAGATGAAGTGTGTTGATGAGAAGATGAGCA
AGAGCTCAGGTGTGCCCCACCAGCTCTGCCACTCCCAAGCTGCCGAACCTAGGCACTAAC
TTACCTCTCTGTGTCTGCTTCCCAACTTGAGAACCAGGAAATGATAAAAGTACCTGCTCCC
TAGGGAGTAGGTATGGTTAAATGAGACCTCTTAAATGAGACCATGCACACGAAGAGCAGA

FIGURE 3HHH



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

18093 TCTGCTTCCCAACTTGAGAACCGGAAATGATAAAAAGTACCTGCTCCCTAGGGAGTAGGTA
TGGTTAAATGAGACCTCTTAAATGAGACCATGCACACGAAGAGCAGAGCACAGTGCCTGG
CACACAGGAGGCACCTAATAAACATCAATGATGCTGCTGCTGGTAACACCCATTTGCTGA
GGGTCTTCAGTGGCTCAGGCACAGTACTCAGTGCCTAACATATAATATGTAATTTATTCT
TCACAGTAGCCTGAGTCACTTGCTTGTCTCTGTTAATATCCTAATGTTTAGCTCACC
[A, G]
ACTTAGATGCTCATGACTTCCAAAGGATCTTCATGTAACAAGGACTCCATATCTATTTTT
AAAAAATAAGAGCTTTATTAAGATATAATTTACATACCATAAAAATTACCTATTTAAAATG
TACAATTCAGTGGTTTTTAGTATATTCACAGAGTTGTGCAATCATCATCACTATCTAATT
GTAGAAAATTTTCATGACTCCAAAAGAACTCCATATCCATTAGCAGTCACTCCCCATT
TTATCTCTCCAGTCCCTGGCAAGCATGAATTTACTTTCTGTCTCTATGGAGTTGCCTAT

18226 CCTAATAAACATCAATGATGCTGCTGCTGGTAACACCCATTTGCTGAGGGTCTTCAGTGG
CTCAGGCACAGTACTCAGTGCCTAACATATAATATGTAATTTATTCTTCACAGTAGCCTG
AGTCACTTGCTTGTCTTCTGGTTAATATCCTAATGTTTAGCTCACCAACTTAGATGCTC
ATGACTTCCAAAGGATCTTCATGTAACAAGGACTCCATATCTATTTTTAAAAAATAAGAG
CTTTATTAAGATATAATTTACATACCATAAAAATTACCTATTTAAAATGTACAATTCAGTG
[G, C]
TTTTTAGTATATTCACAGAGTTGTGCAATCATCATCACTATCTAATTGTAGAAAATTTTC
ATGACTCCAAAAGAACTCCATATCCATTAGCAGTCACTCCCCATTTATCTCTCCAG
TCCCTGGCAAGCATGAATTTACTTTCTGTCTCTATGGAGTTGCCTATTTTGGGCATTTCA
TGTAATGGCATCATACAACAGGTAGATATTTGTGTGTGTGTGTGTGTGTGTGTGTGT
GTGTGTGATCAGCTTCTTTCACGTAACATAATGCTTCAAGGGTCACTCATGTGGCATC

18467 TTTATTAAGATATAATTTACATACCATAAAAATTACCTATTTAAAATGTACAATTCAGTGG
TTTTTAGTATATTCACAGAGTTGTGCAATCATCATCACTATCTAATTGTAGAAAATTTTC
ATGACTCCAAAAGAACTCCATATCCATTAGCAGTCACTCCCCATTTATCTCTCCAG
TCCCTGGCAAGCATGAATTTACTTTCTGTCTCTATGGAGTTGCCTATTTTGGGCATTTCA
TGTAATGGCATCATACAACAGGTAGATATTTGTGTGTGTGTGTGTGTGTGTGTGTGT
[-, T, G]
TGTGTGATCAGCTTCTTTCACGTAACATAATGCTTCAAGGGTCACTCATGTGGCATCC
ATACCTATTTTGAATGAAGAATGAAGACAGTCATCTGAGACAGTTGTATTAGTCCATTG
GAAGATGAGGAACTGAGGCTGAGAGTGTGTATGTAATTTGCTCATGGCCACCCATCTTG
AAAGCGCTTGAGCTGGGATTTGTGCTCAGGTCCATCTGGCTCCAAGGCAAGACCTTGGC
CTTCTCATCCACTCACTGGTCTCTGGTTGGACCTCTGCATCATGCTGAACACCATTCTA

18511 ATGTACAATTCAGTGGTTTTTAGTATATTCACAGAGTTGTGCAATCATCATCACTATCTA
ATTGTAGAAAATTTTCATGACTCCAAAAGAACTCCATATCCATTAGCAGTCACTCCCC
ATTTTATCTCTCCAGTCCCTGGCAAGCATGAATTTACTTTCTGTCTCTATGGAGTTGCC
TATTTTGGGCATTTTCATGTAATGGCATCATACAACAGGTAGATATTTGTGTGTGTGTGT
GTGTGTGTGTGTGTGTGTGTGATCAGCTTCTTTCACGTAACATAATGCTTTCAGGGT
[-, A, T]
CACTCATGTGGCATCCATACCTATTTTGAATGAAGAATGAAGACAGTCATCTGAGACAGT
TGTATTAGTCCATTGGAAGATGAGGAACTGAGGCTGAGAGTGTGTATGTAATTTGCTC
ATGCCCACCCATCTTGAAAGCGCTTGAGCTGGGATTTGTGCTCAGGTCCATCTTGCTCC
AAGGCAAGACCTTGGCCTTCTCATCCACTCACTGGTCTCTGGTTGGACCTCTGCATCATG
CTGAACACCATTCTATAGAGATGGGTGTGTCCACTGGGTGTGGACATCCTGAGGAATT

19107 GAATTGCTGTGGTTGCAAGAACTCTGATATTTTCCATCTACCTTGAGGGGGATATGGTTT
CATGTCTGTATACTCACATAGTGTGACCACTAATTTCTTTGTCCATTTCTTAAGGGT
TATGATATGAACCTTGAAAGTTACAGAAATGAAAGTGATAGGAGAGATATACTTTCTGGG
TTGGAACCCAGCAACCAGTCACTCAATATGATGGAGGAAATGTCATCCTTCTTGTTG
TCTTCAATAATAGATTGTAATGAAACACTATGGTGCTTAGTTGGCTCCCCTCCTGCCCC
[G, A]
TGCCCCCTCCCCAGCCCCAGTGTCTTTCTGGAGACATGAGATGGTGTATCCCTTCTCTCA
GTTGCTGTGATAGCAGTGGGGATGATGGGGACAGGTATTGATGGAAGGAAAAGGCATGGT
ACCAGCAGGCTCTTGGGCAGGGATGTGTGTCTTCACTTGATCATCAGGGAATGAGCTATC
ATGATGACAGAGCATCCTATGAAGTACAAATCTCCCCCACATTTCCCCAAAATTACT
TTTGTCTGCTCTGTTCTCTCACATGCTATTCTAGGGAAAAGGTCCCATTTTATCATTA

FIGURE 3III



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

19223 GGGTTATGATATGAACTTGGAAGTTACAGAAATGAAAGTGATAGGAGAGATATACTTTC
TGGGTTGGAACCCAGCAACCAGTCACTCAATATGATGGAGGAAATGTCATCCTTCTTGT
GTTGCTTCAATAATAGATTGTAATGAAACACTATGGTGTCTTAGTTGGCTCCCCCTCTG
CCCCGTGCCCCCTCCCCAGCCCCAGTGCTTTTCTGGAGACATGAGATGGTGTATCCCTT
CCTCAGTTGCTGTGATAGCAGTGGGGATGATGGGGACAGGTATTATGGAAGGAAAAGGC
[A, G]
TGGTACCAGCAGGCTCTTGGGCAGGGATGTGTGTCTTCACTTGATCATCAGGGAATGAGC
TATCATGATGACAGAGCACATCCTATGAAGTACAAATCTTCCCCACATTTCCCCAAAT
TACTTTTGTCTGCTCTGTTCTCTCACATGCTATTCTAGGAAAAGGTCCCATTTTATCA
TTAAATGCAATGAGATTTCCATCTTGCTTCTACCAAAGAAGGAGGAAAATAACCTATA
TAAACACCATGAAACCTTACTTTGACTTAAACTAGTGGAATTTGGCCCCCTGAATCAGAT

20102 TGGAAGGCAGGAAGTGTGGGGAATTAGTGGACCCAGGAGGAGCCCTCAACCAATAACT
GATGGAAGATGGTGCCTAAACACCCCAATTCCCTCAGCCTTGGGTAGGGTAACCTCAGGAA
TATGGTTTACATGGGGTCCAGTTTCTCTGTAGGAAAAATCCACTGGGCGACAGCAGT
AGCTAGTTAGAACTTCACCTTTTATTGGTTTTCTTGGCTGCCTTCCCAGCCCTTTCTCT
TTTCTCTAATTCCTACTGGCGATTTCTTCACTTCCCAAACAAACCACTTGTGCTCAAAT
[T, C]
GTAATTGTAGGATCAGCTTCTGGGGAAACCCAAATGAAGACATATGGTAAAGCTTCCCTC
TTTTCTTGCCTTTCTGCCTTTTGGCCCAATCAGTTAGCTTTGATGGTGGGAGTGAGGGGA
TGCTCAACCTCTCAGGCAGGCTAATGGCTCTCAGGAGACACAATCCACAGCTGATTGGCA
GTTTTCTCCCCAAGATATCTTCAGAACAAACCCTGGTGTGAGTGATCCATGCAGCA
TGAAAAGAGAGGGTGAAGCTTGATGAGGCATGTTCCAGTCTCATCAAATATTTTGTTC

21946 TTTTTTGTGGAGACGGCCTCCCTATGTTGCCAGGCTGGTCTCCAACCTCCTGTTTTCAAG
CCATCCCCCTTCTCACTCTCCCAAAGTACAATTTAGTATATTTATTAACGTTGTGTTCCA
GGCTTTTTGATTGCTATTGAGATGCTAATGAGATGGTCCCTGTCATTAAAGAGCGTCCAT
TCTGGTGGCACAAGGAACCTCAAATTATGACACAAGACAGAATACCTACTCCAGAAGAGAG
TTCTGTGAAGCGTGAAGGAGGGACTTGAGTGTGCGATTGAGGAAGGACTTCACATTGGA
[G, T]
GGAGTTTTTTTAGATAGGTCTTGAGAAACATTTTACATTTTGAACACCTCATACATCATT
GATAAAAAAAGAAGCAATTGGTCGAAACAACCTTCAATTTCCCCAGATCAAGTCTTCTAGG
TTACCTGCATCTGCACCCACCAGTCCCACCTTGATTCTCTCTAGATGAAGGGCGTCTTT
TCCTACCTAAGGCCGTCCCTTCTGCTTATGCTGGGGAACCTTTGCTCTTTGGGGCATCC
TCTCTTCTCCTGGGAATTGATCTCTCCCTCTCTACTTGAATATTCCTACTAGTGATATAC

22240 ATTGGAGGGAGTTTTTTTAGATAGGTCTTGAGAAACATTTTACATTTTGAACACCTCATA
CATATTGATAAAAAAAGAAGCAATTGGTCGAAACAACCTTCAATTTCCCCAGATCAAGTC
TTCTAGGTTACCTGCATCTGCACCCACCAGTCCCACCTTGATTCTCTCTAGATGAAGGG
CGTCTTTTCTACCTAAGGCCGTCCCTTCTGCTTATGCTGGGGAACCTTTGCTCTTTGG
GGCATCCTCTCTTCTCCTGGGAATTGATCTCTCCCTCTCTACTTGAATATTCCTACTAG
[T, C]
GTATACATGGGCTTCCGTGTCATCCCCCTTGATCCCGCATTGCCGCCAGCCACCCCTCAT
TCCTTTAGGCCTTTCACAGCAAAATGCTGGAAAGGGTGGTCTGAAGTCACCATCACTAC
TTCTTCCCCTCACATTCTTTCCAAGCCACCACCTTTATGGGGGCTGCTCCTTTGGAGG
CCACTTATGGACATTGCATCACCTTTCTGTCTTTTATCTTAAGTACCAGTTAGGATGCT
TTCAGCTGCCTGTTGAGAATGTCTGATACAAGTGACTTACACAATACGGACATTGACT

22679 TTCCAAGCCACCACCACTTTATGGGGGCTGCTCCTTTGGAGGCCACTTATGGACATTGCA
TCACCTTTCTGTCTTTTATCTTAAGTACCAGTTAGGATGCTTTGAGCTGCCTGTTGCAG
AATGTCCTGATACAAGTGACTTACACAATACGGACATTGACTGTTAAGAGAGTTACGTTT
TCACTGAACAAGGATGTTCCAGGCTTGGCTTGGGTGTTTCATAACACCTTCAAGGACCCA
GACTTCAGTTTCTGCCCCTGCCTCTCTTGATCACATCAGCAGATATTATGTCGTCTAAAA
[A, G]
CAGGGAAGGGAGTGAAGTAGCCTCTGTGTTTTTCTTTTTATCATGGAGGATGTTTTTTTT
GCCCTGCAAGCCCATGCACATTTCTTAAATATCACCCCTAAACTCATCCCTGGCAAAG
GGGGATGGTATTATCCTTATTGGCTTGGACCAATTAAGATTCTCCCTGAGTCTGTGAA
TGGGACGCATCTTCTTGAATGTGTCAATTTAACCAAAATGGATCTGTTAAAGGAAGG
GGGAGCGCCTAAGGTGAAGTGCCAGGCAGTGTCTGCCACATTTTCCCTGACCCTTCCCTA

FIGURE 3JJJ



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

24493 TCTCCTCGCCTCTGAAATCTCAGTCCAAATGTCATGTCCTCCAAGAATCTTTCTCTAACC
GCCCACTCCTGCTGGGCACCCTCTGTTGTAGCATACTGTTAGGAGTCTCTGCATCATGCC
TCTAACTCTTTGAAAAAAGTTCTATTTGTTAGTTTAATAAACTAAAACTAAAAATTTA
TAAACCAAATTTCAAATTTTAAAAATTAATAAACTAAAAACAGTACAATGATATCTCTG
TGAAGTCAAGGGAGGAGAGAGTTTAAAGAAGGGGAACCTTAATTAGCAGCACTAAAGGCTC
[T, C]
ACAACGACTCAAGATAATGATAATGATGATGATGATGATGGTGATAATGACAGTGATAAC
TAACATTTTATTGTTACTATGAACCTGGAAGAGTGCCAGGCATTTTGCCTACATTATCATA
TTTAATTCTGACAGATTAAGAGTCTGACAATGCCTCTACTGTCAAGGAATGTTATTCTC
ATTCTCAGAACACTGAGACTTAGGGAGGTGAGTCAAAGTGCCTGGCACATGGTAGCTTTC
GATTAATGTTTGCTATGTGAGTAAATAAATTTCCACAAGGTCTGGAGCTGGTGAATGGT

24822 ATGATGATGATGGTGATAATGACAGTGATAACTAACATTTATTGTTACTATGAACCTGGA
AGAGTGCCAGGCATTTTGCCTACATTATCATATTTAATTTCTGACAGATTAAGAGTCTGGA
CAATGCCCTCTACTGTCAAGGAATGTTATTCTCATTCTCAGAACACTGAGACTTAGGGAGG
TCAGTCAAAGTGCCTGGCACATGGTAGCTTTTCGATTAATGTTTGCTATGTGAGTAAATAA
ATTTCCACAAGGTCTGGAGCTGGTGAATGGTAGAGTTGAGAGTCTAACTTAGATCTGAC
[C, T]
GAATCCAAAGTCCGTATTTGTAACCACTGGTCTATATTTGCTCAGATGAAGACAGAGAAC
CCCTTAACAGATTGAGAAAAGGAAGCCTAATATAGGATAAATGATTCTTATTTATTTAA
AACATGATAAAATAAATTAATTTTCAGTCCAAAACCTTCTGAATTTTGGAAATCTGGACT
CCATTCATTCAATTCATTTGAAGGCATAGGTGAGTTCTTTAAAGAAGCATTAGGAATGA
ATCCAGATTGAACAATTTTCTTATTAATAACCTAAAGATGCATTCTTATGATGAGCCA

24946 GCCTCTACTGTCAAGGAATGTTATTCTCATTCTCAGAACACTGAGACTTAGGGAGGTCAG
TCAAAGTGCCTGGCACATGGTAGCTTTTCGATTAATGTTTGCTATGTGAGTAAATAAATTT
CCACAAGGTCTCGAGCTGGTGAATGGTAGAGTTGAGAGTCTAACTTAGATCTGACCGAA
TCCAAAGTCCGTATTTGTAACCACTGGTCTATATTTGCTCAGATGAAGACAGAGAACCCC
TTAACAGATTGAGAAAAGGAAGCCTAATATAGGATAAATGATTCTTATTTATTTAAAAAC
[-, A]
TGATAAATAAATTAATTTTCAGTCCAAAACCTTCTGAATTTTGGAAATCTGGACTCCAT
TCATTCAATTCATTGGAAGGCATAGGTGAGTTCTTTAAAGAAGCATTAGGAATGAATCC
AGATTGAACAATTTTCTTATTAATAACCTAAAGATGCATTCTTATGATGAGCCAGGTT
CATGTGCCAGGAAAGCTATTAAACTCAGTCTTTGTGATGAGTGAGTAAGAACCCCACT
TGAATTACGTAGTGAGCAGGTGCTTCTAAACCAAGTTTCATGTTTGACAAGCTAGGAGA

24947 CCTCTACTGTCAAGGAATGTTATTCTCATTCTCAGAACACTGAGACTTAGGGAGGTCAGT
CAAAGTGCCTGGCACATGGTAGCTTTTCGATTAATGTTTGCTATGTGAGTAAATAAATTT
CACAAGGTCTCGAGCTGGTGAATGGTAGAGTTGAGAGTCTAACTTAGATCTGACCGAAT
CCAAAGTCCGTATTTGTAACCACTGGTCTATATTTGCTCAGATGAAGACAGAGAACCCCT
TAACAGATTGAGAAAAGGAAGCCTAATATAGGATAAATGATTCTTATTTATTTAAAAACA
[-, A, T]
GATAAATAAATTAATTTTCAGTCCAAAACCTTCTGAATTTTGGAAATCTGGACTCCATT
CATTCAATTCATTGGAAGGCATAGGTGAGTTCTTTAAAGAAGCATTAGGAATGAATCCA
GATTGAACAATTTTCTTATTAATAACCTAAAGATGCATTCTTATGATGAGCCAGGTTT
ATTGTCCAGGAAAGCTATTAAACTCAGTCTTTGTGATGAGTGAGTAAGAACCCCACTT
GAATTACGTAGTGAGCAGGTGCTTCTAAACCAAGTTTCATGTTTGACAAGCTAGGAGAG

24959 AGGAATGTTATTCTCATTCTCAGAACACTGAGACTTAGGGAGGTGAGTCAAAGTGCCTGG
CACATGGTAGCTTTTCGATTAATGTTTGCTATGTGAGTAAATAAATTTCCACAAGGTCTG
GAGCTGGTGAATGGTAGAGTTGAGAGTCTAACTTAGATCTGACCGAATCCAAAGTCCGT
TTTGTAAACCACTGGTCTATATTTGCTCAGATGAAGACAGAGAACCCCTTAACAGATTGAG
AAAAGGAAGCCTAATATAGGATAAATGATTCTTATTTATTTAAACATGATAAATAAAA
[T, C]
TAATTTTCAGTCCAAAACCTTCTGAATTTTGGAAATCTGGACTCCATTCAATTCATT
TTGAAGGCATAGGTGAGTTCTTTAAAGAAGCATTAGGAATGAATCCAGATTGAACAATT
TTCTTATTAATAACCTAAAGATGCATTCTTATGATGAGCCAGGTTTATTGTCCAGGAA
AGCTATTAAACTCAGTCTTTGTGATGAGTGAGTAAGAACCCCACTTGAATTACGTAGT
GAGCAGGTGCTTCTAAACCAAGTTTCATGTTTGACAAGCTAGGAGAGAACCCAGTGTTA

FIGURE 3LLL



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

25321

TGAAGGCATAGGTGAGTTCCTTTAAAAGAAGCATTAGGAATGAATCCAGATTGAACAATTT
TCTTTATTAATAACCTAAAGATGCATTCTTATGATGAGCCAGGTTTCATTGTCCAGGAAA
GCTATTAATAACTCAGTCTTTGTGATGAGTGCAGTAAGAACCCCACTGAATTACGTAGTG
AGCAGGTGCTTCTAAACCAAGTTTCATGTTTGACAAGCTAGGAGAGAACCCAGTGTAA
ATGTTTCTGGCATGTTGGCCTTTGGTTTCTCATATTATGGGACATATGTTTAGTGCTTG
[T, G]
GGTATATGCTTAGCCTACTCTTGTAGGATGACTGAGACCTCACACAACATCAAGGACATA
GTCTTTGCTTTGCTGAGTTCAGAGTGTAATTGGAGTGATGAAACATACATGTGAATAAA
TGCAAAGTCACAAGTAAAGACAGTTAATGTGATTGATGAAGGACGTGTGGCACAAGATGG
ATAAGAATGAGAAGTAGAAGAAGTAGGTGGTTTTGAACCTTCGTTACTCAGGGAAGGGAA
TGTATGTGGATTGGTGGAGAAGAGAGGGGAGGAAGATGGTTTTAAGCACTGGTAAGATGG

27280

TATGGATACCTTACATGCTAGGTTGAACATGGATTTATTTTCACAGATGATCAGGAGCCA
TGGAAGGCTACACTAGCTGGGCGTACATAATTTAAGTCAGAGGGACAAATAACTGCAAGC
TAAATACTCTTAGGGAGAAACTGCAGCAATCTGGGTGAGAAACAATGAATTTGTGAGTAG
TCACCATAGCAAAGGTCTGGGCTAGGGGGCACTGGAGGAGTGAAGAAAGAAAGGTTTAAA
TAGTCACTGAGAGGGCTGAGGACCCACTAGCCACTGGCATAGTGGAGTCAATCATTCTC
[C, T]
GAAATTACGAGGAGGAGAGGTGGGGCATCTCTAAGGCGTGGAGCAGTGGAGGATGGTGAT
TGTATGGTAGGGGAAAGAAGATAATGATCGCAGTTCAGTAGGTGATGGATGAGGAGGGG
AAGGCGTTTTACAGATTATTCAGTGGGAAAGAACAGAGGCAGTCCACACTGTAGTTAATT
CCTTTTATTTTTGTCTTTAAGTATACTCAAGGATAAATAGCCATACAATTTCTGTTTGGC
TTTTCATGCTGGAGAGGTGCAGAGGTTGCACTGAACGTGGACGATATTAATTTGACTTG

28062

GTGGCTGTGGATGCAATTCTGCCCTTACACAGAAATGACTCTCCTGGGCATACCTTTAGG
CAAAGAGCAGATGAACGCATAACGAGCAGCTTTGAGATTTGGTATTTCCCACTGCAGAACG
AAGAGAAGGGTGGCCCACTGGAATTTCTCAGAGAAACGCTAAGTCTGCATCTCCAC
ATCCATTCAATTTTCATGCATAGTTCTTTTCATCTGTTGTTTTTTAATTTATCTATTTTATA
TAATGTCTATCTCTGTAGTACCTGGGATGAAATGCGCCAATCCTGACTGCAATGAATAGG
[G, A]
CAAAGCAATTCTTGGGAGCTGCTCTGGGCAGGAAGTGGAGGCTGAATTCTTTTAAAGGAA
AATTTTTTGGGGATCGTGACTCACTGGCCTTCATCCCATCATCACTGGGATTGGTTAAG
TGCCAGGAAACAGCTGGAAGTCGACAGACAATTTAGGGTACAAATGAAAGGAGAAGTTAC
TGTTAAAGGGATCTGTATTCTCTGTTATCAAACCAACGCTGTCTCCTAGCTAATAG
GAACCAAACTGTGCCCTGAGAATGCTGCCAGATGTTTCTCAATAGGCACGTTACGTTTT

29033

ATGTTTCTCCAAGAGAAATGTTCTATTGTACTACATTAATTCTTAGATGCATTTTTGAAT
TATTACCTTCTGAAATCAGAATGTGTCTTACTAGCAATATGTCATAATTTAATTGGCA
ATTTAAATTTTCAAGAGGCACATAAGATAATGATGTGTTTTGTAATTGACAATGTCTTGA
TTTGATAGAAGATAATTTGTACAATACTATATTGGTACCATGCTTTGGCCGATGTAATGGT
CCTATTGAGTTCACTACTAATGTTAAGCCTCTAGTTTTAGGCGTTGATGTTGGTCCAG
[G, C]
GACACTAGGACTCAAATGCCAGATGTCCAGGTCTAAGAGAGAAGAATCAGAAGGTGAAT
GCAGAGCCAGTGGGTTCAAGCCATGTAGACAATAATAGCAGAATGGAGAGACATTTTCC
GATGCCTCATGTCTATGCATCTTCTCTCCCTTTCTGGCCTGCCACATAAATTCATTGCAG
TGCAACTCTGCCAGATATCAGAATAGAGCAGGAGGAAAGAGAAACAGCTGCAGCATGGGA
GATAGGACTCATACCAAGAGAGATTAGGCTCGGTGTGTATACCTAATGATGGTAAAGTGA

29302

CCTCTAGTTTTAGGCGTTGATGTTGGTCCAGGGCACTAGGACTCAAATGCCAGATGTC
CAGGTCTAAGAGAGAAGAATCAGAAGGTGAATGCAGAGCCAGTGGGTTCAAGCCATGTA
GACAATAATAGCAGAATGGAGAGACATTTTCCGATGCCTCATGTCTATGCATCTTCTCTC
CCTTTCTGGCCTGCCACATAAATTCATTGCAGTGCAACTCTGCCAGATATCAGAAATAGAG
CAGGAGGAAAGAGAAACAGCTGCAGCATGGGAGATAGGACTCATACCAAGAGAGATTAGG
[C, -]
TCGGTGTGTATACCTAATGATGGTAAAGTGAACAACCAAGGTTACAGTGATAGCAGCAACA
CGCATTTATCGAGTGTCTATCCACTTCAGAAACACTATTTTTAAATGATAACAATTCTA
CAAGATAAGTATTCAATGATCATCAATATTATCCTTGTTCATGTGTAAAACCTGGGGCTC
AGAGAGGGTAAAAAATGTCCAAGGTCAATACAGTTAGGAAATGGTAGAACCAAGGATTCA
GGCTTTGCTCCATGGGGCATCAAGGTCTGCTCCACTTCAGTGTGCCATGCAGTTTCCCC

FIGURE 3MMM



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

- 31093 TCTTTTAGAGTTTCCAGTATAAGAACAAATAGATGAGCAAACACATATAAGAAATACATT
GAAGAGAATTAGAATATTTCATGAATGTACAGTGAGAAATTCTTAACCTATACAGGGTCAT
AGTTGACTTCATTTAAATATTTTCTAAGGGTAGAACGCAACATTATTAGAATACCTGAGA
GGGAAGGTTGGGACCGTGCCCTTGAAGTAGCATATTAAATTTAAGAGAGGAAAGAGAAA
GCTGGCAATATTTCAAGTCTGGAACGTGATCCTTAAGGCAATACCTTGCTGCTGGAATTTG
[T, C]
ATTTTAAAGACCAGCCAGAATCTCTGTGTGCTCTTGCCCATGTAGCCCTATGAGGACGT
TTGTATATTTGGATTGCTTGAGGCCTGAGTGTCTATGGGCATAGGCAGAGTCATTGGATCA
ACCCATGTATCTGTTGCTTGACACATTGCTCTGGATACATTGTACCCAAGAAATCAGCCC
AAGTGGGATCCAGCCCAAAGAGAATTGTTGATTTTCAAACCTGAACAGTCCAGGCAAAG
CTCAATCTAGGGCTCAGATCATGCATCCAGGACTGCATAGTTCTTCATTTCTTGATTCGT
- 31454 TTGTATATTTGGATTGCTTGAGGCCTGAGTGTCTATGGGCATAGGCAGAGTCATTGGATCA
ACCCATGTATCTGTTGCTTGACACATTGCTCTGGATACATTGTACCCAAGAAATCAGCCC
AAGTGGGATCCAGCCCAAAGAGAATTGTTGATTTTCAAACCTGAACAGTCCAGGCAAAG
CTCAATCTAGGGCTCAGATCATGCATCCAGGACTGCATAGTTCTTCATTTCTTGATTCGT
CTTCTTTGCATTGCTCTATTCTTAGGCAAGTTCATCTTGAAATCCTAAGGTGGCTGCC
[G, A]
AAGGCTGCAGACCCTCTCTGTCTTCCAGATTTACATCCTTCAGGAGAGCGAAAGCTCAG
TTCCCTAAGGCTGAAACAAAAGTCTTGCAATGGCATCTTTTGGTCTGATTGGCCTGTCT
TAGGGTCAGATACTCATTCTTTAATTATCATGGTGGTGGTGGGGAATCGAATGTGCTA
ATTGGCTTTGCCCTGGGTTGTGTGCTTCACTCATGGAACCTAAGAGAGAAGCCAGTGAAG
CCCAACTCAAGGGCTGAGAGTGGGCTGTAGTGGTTCCCTAAACAAAATCGGTACTGTTG
- 31834 AAGTCTTGCAATGGCATCTTTTGGTCTGATTGGCCTGTCTAGGGTCAGATACTCATTCT
TTTAATTATCATGGTGGTGGTGGGGAATCGAATGTGCTAATTGGCTTTGCCCTGGGTTG
TGTGCTTCACTCATGGAACCTAAGAGAGAAGCCAGTGAAGCCCAACTCAAGGGCTGAGA
GTGGCTGTAGTGGTTTCCCTAAACAAAATCGGTACTGTTGACATAATATGGCATGGTCA
TGGATGCTGAGAGAATGATGTAGAGAAAGGGTGGATGAGAATGGAAGCAGGACTAGGCAC
[A, G]
GTGGTTCACACTTGTAACCTCAGTCACTTGGGAGGCTGAGGCAGGAGGATCGCTTGTGGC
CAGGAGTTAGTGACCAGCCTGAGCAACATAGTGAGACCCTATCTCTAAAAAAATTTATTT
TTAAATTAGCCAAGTGTGGTGGTGCATGCCTATAGTCCCAGCTGCTTGGGAGACTGAGGT
AGGAGGATCGCTTCAGCCCAGGAGTTCAAAGTTACGGTGAGCTATGATTGCACCACTGCA
CACTAGCCTGGGTAAACAGAGCAAGACTCTGTCCATAAAAAAGAAGAAGGAGGAGAGAA
- 31936 TTGGCTTTGCCCTGGGTTGTGTGCTTCACTCATGGAACCTAAGAGAGAAGCCAGTGAAGC
CCAACTCAAGGGCTGAGAGTGGGCTGTAGTGGTTTCCCTAAACAAAATCGGTACTGTTGA
CATAATATGGCATGGTCATGGATGCTGAGAGAATGATGTAGAGAAAGGGTGGATGAGAAT
GGAAGCAGGACTAGGCACAGTGGTTCACTTGTAACCTCAGTCACTTGGGAGGCTGAGG
CAGGAGGATCGCTTGTGGCCAGGAGTTAGTGACCAGCCTGAGCAACATAGTGAGACCCTA
[C, T]
CTCTAAAAAAATTTATTTTAAATTAGCCAAGTGTGGTGGTGCATGCCTATAGTCCCAGC
TGCTTGGGAGACTGAGGTAGGAGGATCGCTTCAGCCCAGGAGTTCAAAGTTACGGTGAGC
TATGATTGCACCACTGCACACTAGCCTGGGTAAACAGAGCAAGACTCTGTCCATAAAAAA
GAAGAAGGAGGAGGAGAAGGAGGCTAAGAAGAAAGGAAGTGGGTATGCTAGTTTGGAGGT
ATTGAAGTCCAGGCAAAGAATCATGGTGGCTTGGACAAGCAGAGTGACTGCTGAGATGGA
- 31947 TGGGTTGTGTGCTTCACTCATGGAACCTAAGAGAGAAGCCAGTGAAGCCCAACTCAAGG
GCTGAGAGTGGGCTGTAGTGGTTTCCCTAAACAAAATCGGTACTGTTGACATAATATGGC
ATGGTCATGGATGCTGAGAGAATGATGTAGAGAAAGGGTGGATGAGAATGGAAGCAGGAC
TAGGCACAGTGGTTCACTTGTAACCTCAGTCACTTGGGAGGCTGAGGCAGGAGGATCG
CTTGTGGCCAGGAGTTAGTGACCAGCCTGAGCAACATAGTGAGACCCTATCTCTAAAAAA
[A, T]
TTTATTTTAAATTAGCCAAGTGTGGTGGTGCATGCCTATAGTCCCAGCTGCTTGGGAGA
CTGAGGTAGGAGGATCGCTTCAGCCCAGGAGTTCAAAGTTACGGTGAGCTATGATTGCAC
CACTGCACACTAGCCTGGGTAAACAGAGCAAGACTCTGTCCATAAAAAAGAAGAAGGAGG
AGGAGAAGGAGGCTAAGAAGAAAGGAAGTGGGTATGCTAGTTTGGAGGTATTGAAGTCCA
GGCAAAGAATCATGGTGGCTTGGACAAGCAGAGTGACTGCTGAGATGGAGAGTGGTGGAT

FIGURE 3NNN



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

31980

AGAAGCCCAGTGAAGCCCAACTCAAGGGCTGAGAGTGGGCTGTAGTGGTTTCCCTAAACA
AAATCGGTACTGTTGACATAATATGGCATGGTCATGGATGCTGAGAGAATGATGTAGAGA
AAGGGTGGATGAGAATGGAAGCAGGACTAGGCACAGTGGTTCACACTTGTAACCTCAGCT
ACTTGGGAGGCTGAGGCAGGAGGATCGCTTGTGGCCAGGAGTTAGTGACCAGCCTGAGCA
ACATAGTGAGACCCTATCTCTAAAAAAATTTATTTTAAATTAGCCAAGTGTGGTGGTGC
[A, G]
TGCCTATAGTCCCAGCTGCTTGGGAGACTGAGGTAGGAGGATCGCTTCAGCCCAGGAGTT
CAAAGTTACGGTGAGCTATGATTGCACCACTGCACACTAGCCTGGGTAAACAGAGCAAGA
CTCTGTCCATAAAAAAGAAGAAGGAGGAGGAGAAGGAGGCTAAGAAGAAAGGAAGTGGGT
ATGCTAGTTTGGAGGTATTGAAGTCCAGGCAAAGAATCATGGTGGCTTGGACAAGCAGAG
TGACTGCTGAGATGGAGAGTGGTGGATGGGTTTGATTTCTAGTTTGGAGATGGAATCCAC

32156

AGCTACTTGGGAGGCTGAGGCAGGAGGATCGCTTGTGGCCAGGAGTTAGTGACCAGCCTG
AGCAACATAGTGAGACCCCTATCTCTAAAAAAATTTATTTTAAATTAGCCAAGTGTGGTG
GTGCATGCCTATAGTCCAGCTGCTTGGGAGACTGAGGTAGGAGGATCGCTTCAGCCCAG
GAGTTCAAAGTTACGGTGAGCTATGATTGCACCACTGCACACTAGCCTGGGTAAACAGAG
CAAGACTCTGTCCATAAAAAAGAAGAAGGAGGAGGAGAAGGAGGCTAAGAAGAAAGGAAG
[T, G]
GGGTATGCTAGTTTGGAGGTATTGAAGTCCAGGCAAAGAATCATGGTGGCTTGGACAAGC
AGAGTGACTGCTGAGATGGAGAGTGGTGGATGGGTTTGATTTCTAGTTTGGAGATGGAAT
CCACAGCATTGCTGATGAAATACATGTTGAAGATGGTAAGGAAAATAATTAAAAATGAT
TCCTAGGCTTGTGGACTGAGTAACTTGGGAGGATGGTGGTAGCATTTCCTTGAGATAGGTA
AGAATGGAGGGTTTTTATTATTTTAAATCAACTATGCTATTCTAGCTCTGTGGGATTTG

32161

CTTGGGAGGCTGAGGCAGGAGGATCGCTTGTGGCCAGGAGTTAGTGACCAGCCTGAGCAA
CATAGTGAGACCCCTATCTCTAAAAAAATTTATTTTAAATTAGCCAAGTGTGGTGGTGCA
TGCCTATAGTCCCAGCTGCTTGGGAGACTGAGGTAGGAGGATCGCTTCAGCCCAGGAGTT
CAAAGTTACGGTGAGCTATGATTGCACCACTGCACACTAGCCTGGGTAAACAGAGCAAGA
CTCTGTCCATAAAAAAGAAGAAGGAGGAGGAGAAGGAGGCTAAGAAGAAAGGAAGTGGGT
[A, G]
TGCTAGTTTGGAGGTATTGAAGTCCAGGCAAAGAATCATGGTGGCTTGGACAAGCAGAGT
GACTGCTGAGATGGAGAGTGGTGGATGGGTTTGATTTCTAGTTTGGAGATGGAATCCACA
GCATTTGCTGATGAAATACATGTTGAAGATGGTAAGGAAAATAATTAAAAATGATTCCTA
GGCTTGTGGACTGAGTAACTTGGGAGGATGGTGGTAGCATTTCCTTGAGATAGGTAAGAAT
GGAGGGTTTTTATTATTTTAAATCAACTATGCTATTCTAGCTCTGTGGGATTTGAGAAG

32436

GAGGCTAAGAAGAAAGGAAGTGGGTATGCTAGTTTGGAGGTATTGAAGTCCAGGCAAAGA
ATCATGGTGGCTTGGACAAGCAGAGTGACTGCTGAGATGGAGAGTGGTGGATGGGTTTGA
TTTCTAGTTTGGAGATGGAATCCACAGCATTGCTGATGAAATACATGTTGAAGATGGTA
AGGAAAATAATTAAAAATGATTCCTAGGCTTGTGGACTGAGTAACTTGGGAGGATGGTGG
TAGCATTTCCTTGAGATAGGTAAGAATGGAGGGTTTTTATTATTTTAAATCAACTATGCT
[A, G]
TTCTAGCTCTGTGGGATTTGAGAAGCCTGTTAATATCTGAGTGGGAATGTCAATTGGACA
GTTGGAGACAGGAGTCTGGAATTTAGAGGGTAGAGCTGGAAATATATATTATGATGATATA
TGAATCCATAATGAGAAGGGGTGGCTATAGCAGTTTTTATTTTACTTTTAAAGCCATTT
AACTAGTTTATTAATTTGGCGGGCCTTCTTGAGAGTACAAACCATAAAATCACTTCATTTA
TCTTCAACTCCTACCTTCACTCTTGCCCTGTGAGGCCAACCTGGATGATACACCAGAAA

32490

CAAAGAATCATGGTGGCTTGGACAAGCAGAGTGACTGCTGAGATGGAGAGTGGTGGATGG
GTTTGATTTCTAGTTTGGAGATGGAATCCACAGCATTGCTGATGAAATACATGTTGAAG
ATGGTAAGGAAAATAATTAAAAATGATTCCTAGGCTTGTGGACTGAGTAACTTGGGAGGA
TGGTGGTAGCATTCTTGAGATAGGTAAGAATGGAGGGTTTTTATTATTTTAAATCAAC
TATGCTATTCTAGCTCTGTGGGATTTGAGAAGCCTGTTAATATCTGAGTGGGAATGTCAA
[T, C]
TGGACAGTTGGAGACAGGAGTCTGGAATTTAGAGGGTAGAGCTGGAAATATATATTATGATG
GATATATGAATCCATAATGAGAAGGGGTGGCTATAGCAGTTTTTATTTTACTTTTAAAG
CCATTTAACTAGTTTATTAAATTTGGCGGGCCTTCTTGAGAGTACAAACCATAAAATCACTT
CATTTATCTTCAACTCCTACCTTCACTCTTGCCCTGTGAGGCCAACCTGGATGATACAC
CAGAAAATACCTCACAGCTTTTCCAGGCACCTTAAAAATCAAATCAAGTAAATAGAAATA

FIGURE 3000



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32526 GCTGAGATGGAGAGTGGTGGATGGGTTTGATTCTAGTTGGAGATGGAATCCACAGCAT
TTGCTGATGAAATACATGTTGAAGATGGTAAGGAAAATAATTAAAAATGATTCCTAGGCT
TGTGGACTGAGTAACTTGGGAGGATGGTGGTAGCATTCTTGAGATAGGTAAGAATGGAG
GGTTTTATTATTTAAAAATCAACTATGCTATTCTAGCTCTGTGGGATTTGAGAAGCCTG
TTAATATCTGAGTGGGAATGTCAATTGGACAGTTGGAGACAGGAGTCTGGAATTTAGAGG
[G, A]
TAGAGCTGGAATATATATTTCATGGATATATGAATCCATAATGAGAAGGGGTGGCTATAG
CAGTTTTATTCTTTACTTTTAAAGCCATTTAACTAGTTTATTAAATTGGCGGGCCTTCTT
GAGAGTACAAACCATAAATCACTTCATTTATCTTCAACTCCTACCTTCACTCTTGCCTG
TGAGGCCAACCTGGATGATACACCAGAAATACCTCACAGCTTTTCCAGGCACTTAAAA
ATCAATCAAGTAAATAGAAATAAAAAATTGTACTTTTTTTTTTCAGATATTCAAAAGTCC

32893 TTATTTTTACTTTTTAAAGCCATTTAACTAGTTTATTAAATTGGCGGGCCTTCTTGAGAGT
ACAAACCATAAATCACTTCATTTATCTTCAACTCCTACCTTCACTCTTGCCCTGTGAGGC
CAACCTTGGATGATACACCAGAAATACCTCACAGCTTTTCCAGGCACTTAAAAATCAAA
TCAAGTAAATAGAAATAAAAAATTGTACTTTTTTTTTTCAGATATTCAAAAGTCCAGTTTT
ACATGAATCAAAACATCAACCTCTCATCCAATTCAAAGCTCTCTTTCAGCCGGGTGAGGT
[A, G]
GCTTGTGCCTGTAATCCCAGCACTTATGGGAGGCCGAGGCAGGCCATCGCTTGAGCCAG
GAGCTTGAGACCAGCCTGGTGAAACCCTGTCTCTACTGAAAATACAAAAACTAGCTGGGC
GTGGTGGTGTGTGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCACAAGAGTCGCTTGA
ACAAGTGGGGAGGACTTTGCAGTGAGCAGAGATCGTGCCACTGCACCCAGCCTGGGTGA
CAGAGCCAGTCCCTGTCCAAAACAAAACCAACAAAAAACCTGTAATCCCAGCACTCTG

32900 TACTTTTAAAGCCATTTAACTAGTTTATTAAATTGGCGGGCCTTCTTGAGAGTACAAACC
ATAAATCACTTCATTTATCTTCAACTCCTACCTTCACTCTTGCCCTGTGAGGCCAACCT
GGATGATACACCAGAAATACCTCACAGCTTTTCCAGGCACTTAAAAATCAAATCAAGTA
AAATAGAAATAAAAAATTGTACTTTTTTTTTTCAGATATTCAAAAGTCCAGTTTACATGAA
TCAAAACATCAACCTCTCATCCAATTCAAAGCTCTCTTTCAGCCGGGTGAGGTAGCTTGT
[G, T]
CCTGTAATCCCAGCACTTATGGGAGGCCGAGGCAGGCCATCGCTTGAGCCAGGAGCTTG
AGACCAGCCTGGTGAAACCCTGTCTCTACTGAAAATACAAAAACTAGCTGGGCGTGGTGG
TGTGTGCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCACAAGAGTCGCTTGAACAAGTG
GGGAGGACTTTGCAGTGAGCAGAGATCGTGCCACTGCACCCAGCCTGGGTGACAGAGCC
AGTCCTGTCCAAAACAAAACCAACAAAAAACCTGTAATCCCAGCACTCTGGGAGGCC

33087 AATAAAAAATTGTACTTTTTTTTTTCAGATATTCAAAAGTCCAGTTTACATGAATCAAAAC
ATCAACCTCTCATCCAATTCAAAGCTCTCTTTCAGCCGGGTGAGGTAGCTTGTGCCTGTA
ATCCCAGCACTTATGGGAGGCCGAGGCAGGCCATCGCTTGAGCCAGGAGCTTGAGACCA
GCCTGGTGAAACCCTGTCTCTACTGAAAATACAAAAACTAGCTGGGCGTGGTGGTGTGTG
CCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCACAAGAGTCGCTTGAACAAGTGGGGAGG
[A, G]
CTTTGCAGTGAGCAGAGATCGTGCCACTGCACCCAGCCTGGGTGACAGAGCCAGTCCCT
GTCCAAAACAAAACCAACAAAAAACCTGTAATCCCAGCACTCTGGGAGGCCGAGGTGG
GTACATCACTGAGGTGGCAGTTCAAGACCTGCCTGGCCAAAATGGTAAACCCCGTCT
CTACTGAAAATACAAAAATTGGCTGGGCATTGTGGCGGGTGCCATAATCCCAGATATT
CAGGATGCTGAGGCAGGAGAATTGCTTGAACCCGGGAGGCAGAGTTTATATTGAGCCGAG

33474 CCTGTAATCCCAGCACTCTGGGAGGCCGAGGTGGGTACATCACCTGAGGTGGGCAGTTCA
AGACCTGCCTGGCCAAAATGGTAAACCCCGTCTCTACTGAAAATACAAAAATTTGGCTG
GGCATTGTGGCGGGTGCCATAATCCCAGATATTCAAGATGCTGAGGCAGGAGAATTGCT
TGAACCCGGGAGGCAGAGTTTATATTGAGCCGAGATCGCGCCATTGCACTCCAGCCTGGG
TGACAGAGGGAGACTCCATCTCAAACAACAACAGCAACAACAACAAAACAAAATCACAAA
[C, G]
CTCTCTCTTTCCCTGTAGGCCAGGCCTGGCCTGAGACACTGCAGATCAGCCATGGGAAAGG
GAAGGCGGGGGCGTGGCTGTTCCCTTTCCCTCTTGTGCACACTCCTTTCTGTCTGGCT
TTGTGCTTTTGGCTCCACCACAGTCAAGGGGCAGGAGAAGGTGACTAGAAAGCAAGGG
TGTTTTACTTAGCTGGTGCTTCTTATGGTTCTTTCTAGTCATGAAATAGTCTCTGTCTTG
CAGGTGTCCAGCTTTTGTGAGTTCTTCGCCACCCTGTGAAGACCCCGAGCTTTCCTCTA

FIGURE 3PPP



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

33474

CCTGTAATCCCAGCACTCTGGGAGGCCGAGGTGGGTACATCACCTGAGGTCGGCAGTTCA
AGACCTGCCTGGCCAAAATGGTAAAACCCCGTCTCTACTGAAAATACAAAAAATTGGCTG
GGCATTGTGGCGGGTGCCATAATCCCAGATATTCCAGGATGCTGAGGCAGGAGAATTGCT
TGAACCCGGGAGGCAGAGTTTATATTGAGCCGAGATCGCGCCATTGCACTCCAGCCTGGG
TGACAGAGGGGAGACTCCATCTCAAACAACAACAGCAACAACAACAAAACAAAATCACAAA
[C, T, G]
CTCTCCTTTCCCTGTAGGCCAGGCCCTGGCCTGAGACACTGCAGATCAGCCATGGGAAAGG
GAAGGCGGGGGCCGTGGCTGTTCCCTTTCCCTCCTTGTGCACACTCCTTTCTGCTGGCT
TTGTGCTTTTTGGCTCCACCACAGTCAAGGGGCAGGAGAAGGTGACTAGAAAGCAAGGG
TGTTTTACTTAGCTGGTGCTTCTTATGGTTCTTTCTAGTCATGAAATAGTCTCTGTCTTG
CAGGTGTCCAGCTTTTGTGAGTTCTTCGCCACCCTGTGAAGACCCCGAGCTTTCTCTA

33474

CCTGTAATCCCAGCACTCTGGGAGGCCGAGGTGGGTACATCACCTGAGGTCGGCAGTTCA
AGACCTGCCTGGCCAAAATGGTAAAACCCCGTCTCTACTGAAAATACAAAAAATTGGCTG
GGCATTGTGGCGGGTGCCATAATCCCAGATATTCCAGGATGCTGAGGCAGGAGAATTGCT
TGAACCCGGGAGGCAGAGTTTATATTGAGCCGAGATCGCGCCATTGCACTCCAGCCTGGG
TGACAGAGGGGAGACTCCATCTCAAACAACAACAGCAACAACAACAAAACAAAATCACAAA
[C, T, G]
CTCTCCTTTCCCTGTAGGCCAGGCCCTGGCCTGAGACACTGCAGATCAGCCATGGGAAAGG
GAAGGCGGGGGCCGTGGCTGTTCCCTTTCCCTCCTTGTGCACACTCCTTTCTGCTGGCT
TTGTGCTTTTTGGCTCCACCACAGTCAAGGGGCAGGAGAAGGTGACTAGAAAGCAAGGG
TGTTTTACTTAGCTGGTGCTTCTTATGGTTCTTTCTAGTCATGAAATAGTCTCTGTCTTG
CAGGTGTCCAGCTTTTGTGAGTTCTTCGCCACCCTGTGAAGACCCCGAGCTTTCTCTA

33741

ACAACAGCAACAACAACAAAACAAAATCACAAAGCTCTCCTTTCCCTGTAGGCCAGGCCCT
GGCCTGAGACACTGCAGATCAGCCATGGGAAAGGGAAGGCGGGGGCCGTGGCTGTTCCCTT
TTCCCTCCTTGTGCACACTCCTTTCCCTGCTGGCTTTGCTGCTTTTGGCTCCACCACAGTC
AAGGGGCAGGGAGAAGGTGACTAGAAAGCAAGGGTGTTTTACTTAGCTGGTGCTTCTTAT
GGTTCTTTCTAGTCATGAAATAGTCTCTGTCTTGCAGGTGTCCAGCTTTTGTGAGTTCTT
[C, G]
GCCACCCTGTGAAGACCCCGAGCTTTCTCTACAGACATGGATGATGCCCTCCCTGGCT
GGTCTCTTATGACACCCCGGCCCTCTCAGCTTCTGCCTTGAGTGTACCCTGAACTTTTCT
TCTCAAGTGGATGGACTTCTTGGGGAAGGCTTTTTTCTGAAGGCTTTGATGTAGCTTCTG
ACCCCATCCAGTGCCCTACTTGGCCAGGAGAAACCATTAGGCATCTTTGTGCTGCCATAT
ATGGGGAAGCACGTGACTCCACTGTTGCCTACCCTCCTCAGCCTGCATTACAGGCCAAA

34043

CCACCTGTGAAGACCCCGAGCTTTCTCTACAGACATGGATGATGCCCTCCCTGGCTG
GTCTCTTATGACACCCCGGCCCTCTCAGCTTCTGCCTTGAGTGTACCCTGAACTTTTTTT
CTCAAGTGGATGGACTTCTTGGGGAAGGCTTTTTTCTGAAGGCTTTGATGTAGCTTCTGA
CCCCATCCAGTGCCCTACTTGGCCAGGAGAAACCATTAGGCATCTTTGTGCTGCCATATA
TGGGGAAGCACGTGACTCCACTGTTGCCTACCCTCCTCAGCCTGCATTACAGGCCAAAC
[G, A]
CTGCGCACCCATGTCTGATTTTCCAGGGCCGTCTCATTGCACACCTCCAGAGGGCATCA
TTCACATGTGTTCTCCTAGAATTGCACAGTTAATGTGGCAGCCCTGAGTTCAGACAAATC
TCTCATGCCCTACCTGTAGCAGTGCACTTCTATGAAGTATGCAGTTCAGCAGGCACCCAG
CTGGGGTTCCAGATGCTGAGACCCCTTCTGCCAACCCCTCTGATCTCTGAGCAGTTCTC
TTTCTGCTCCTTCATTTGCCATAGTGCTGCAATGCTATGTGTTCTTTCTGCTAAGAAAT

34053

AAGACCCCGAGCTTTCTCTACAGACATGGATGATGCCCTCCCTGGCTGGTCTCTTATG
ACACCCCGGCCCTCTCAGCTTCTGCCTTGAGTGTACCCTGAACTTTTTTTCTCAAGTGA
TGGACTTCTTGGGGAAGGCTTTTTTCTGAAGGCTTTGATGTAGCTTCTGACCCCATCCAG
TGCCCTACTTGGCCAGGAGAAACCATTAGGCATCTTTGTGCTGCCATATATGGGGAAGC
ACGTGACTCCACTGTTGCCTACCCTCCTCAGCCTGCATTACAGGCCAAACGCTGCGCACC
[C, T]
ATGTCGTGATTTTCCAGGGCCGTCTCATTGCACACCTCCAGAGGGCATCATTACATGTG
TTCTCCTAGAATTGCACAGTTAATGTGGCAGCCCTGAGTTCAGACAAATCTCTCATGCC
CTACCTGTAGCAGTGCACTTCTATGAAGTATGCAGTTCAGCAGGCACCCAGCTGGGGTTCC
AGATGCTGAGACCCCTTCTGCCAACCCCTCTGATCTCTGAGCAGTTCTTTCTGCTCC
TTCATTTGCCATAGTGCTGCAATGCTATGTGTTCTTTCTGCTAAGAAATGCTTTTTCTC

FIGURE 3QQQ



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Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

34297 GACTCCACTGTTGCCTACCCTCCTCAGCCTGCATTACAGGCCAAACGCTGCGCACCCATG
TCTGATTTTCCCAGGGCCGTCTCATTGCACACCTCCAGAGGGCATCATTACATGTGTTT
TCCTAGAATTGCACAGTTAATGTGGCAGCCCTGAGTTCAGACAAATCTCTCATGCCCTTA
CCTGTAGCAGTGCATTCTATGAAGTATGCAGTTCAGCAGGCACCCAGCTGGGGTTCAGA
TGCTGAGACCCCTTCTGCCAACCCCTCTGATCTCTGAGCAGTTCCTTTCTGCTCCTTC
[A, C]
TTTGCCATAGTGCTGCAATGCTATGTGTTCTTTTCTGCTAAGAAATGCTTTTCTCCAGC
GAATTCCTTTATATGGCTTAGAGATCATATGCAAGCTCTGCATTGATGGATCCTCAGTCT
TCAGTTTGTAGAGATCTCAGTATAAACCCCAAGACAACAGGAAAGGGCTCACTTAACATT
GCCTTGTAACAGAGAAACCTCTCTTTGAATGAAAGCTGTGAGGGAAGCTCAGTATATAA
AGCAGGTGACATGGTCTCCATTGGGGTGGTGGGGAACGAGGGGCGGGGTGCTCAAGGCT

37209 CAGTGGGGTGGTGAAGGAAGTCCCTCGCTGAGGAGGCAGCATTGAGCACTGAGAGGGA
GCTACCCTGTAAGGCCCTGGGCAAGACTGTTCCAGGTTGAGGGAACAACACACGTGCAGT
CCCTGAGACTAGAGCTAACTTGGACAAATGAGAAGACCAGTGTGGCTGGGCGGTATTGAG
GGACAGATGGTAGGAGATGAAGGTGGAGAAGTGGGCCATGGCCAGAATTTGGGGATCTAA
GGACAGGAGTTTGGGAGGTTCTCAAGGAGTTGTGGGAACCCCTCTGGGAAGGTTTTCAGC
[T, C, G]
TGCAGTGGAAGGATCGAATTTACATTTTGGCAGGCAGGTTAGGACACTGTTGTGCAGAAA
CAACAATGGCTAATGGGCTGGTTGAGGTGGGAATGAAAGAAGTGGTGAATGAAATCAGG
ATGTATTTGCAAGGAGAGTTGGCTGGACTGGCTGTGGGTGTGAGGCAGGGTGGAGCCA
TAGACTACTCTGGATTTTCTGTCCAAGCCCTGGATGAATAGCAGTACCATGAATTGAGAT
GCACAAGCCTAGGAGAAGAGGCAGATTTGGGATGTGAATGTGTATGAGTGAAAACAAAT

37475 GGAGTTGTGGGAACCCCTCTGGGAAGGTTTTAGCGTGCAGTGGGAAGGATCGAATTTACAT
TTTGGCAGGCAGGTTAGGACACTGTTGTGCAGAAACAACAATGGCTAATGGGCTGGTTGA
GGTGGGAATGAAAGAAGTGGTGAATGAAATCAGGATGTATTTGGAAGGGAGAGTTGGCT
GGACTGGCTGTGGGTGTGAGGCAGGGTGGAGCCATAGACTACTCTGGATTTTCTGTCCA
AGCCCTGGATGAATAGCAGTACCATGAATTGAGATGCACAAGCCTAGGAGAAGAGGCAGA
[G, T]
TTGGGATGTGAATGTGTATGAGTGAAAACAAATTTCTCTTTGAATCATGTTCAATGTGC
TACTTGGACAAGCAGCTAATTGGACAACCTAAGTGTAAAAATTAATAGTGAACAATGAGT
GGAACAAAACGTTAGAGCTGTACATTTTGCTTTAGAAGGGGCATACTTTTGTCTTTAGAA
CGTGTGGCAATCTAATACAAATGGCCAACAAACATATGAAAAATGCTCAACATCACTAA
TGATAAGGGAGATGCAAATCAAACCAACAAAGCGATACTGCCTTACCCCTGCAAGAAATGG

38476 GGATGGAATTGGAGACCAACATTCTAAGTGAAGTAACTCAGGAATGGAAAAACCAACAT
TGTGTGTTCTTACTTATAAGTGGGAGCTAAGCTATGAGGATGCAAAGGCATCCTCATTTGG
ACTTTGGGGACTTGGTGAAAAGGGTGGGGGCAGTGAGGGATAAAAGACAGCAAATTTGGGT
ACAGTGTACACTGCTCGGGTGTGGGTGCACCAAAATTTCAAGTCACCACTAAAGAGC
TTAGTCATGTAACCAACACCACCTCTTCCCCAAAACCTACAGAAATAATAATAAAAAA
[A, G]
AACTTGTGGCAATCTAATTGATGATAATTGATGGTAGCATCCATGTTGGGAAGGAAGGA
AACAAATGCCAAACACTATGCTAGCTGCTTCACATGTATTGTTTTTTCAGGGGTGTAAGGC
TTGAGAAGCATCTAGTGTCTGTGTGAGATTATGCATTCTGGAGGCAGATTGCTAAGGTT
CAAGTCCTGGCCCTGCCTGTAGTGGCATGTTCTATGCTTTGCTTGCTTATCTGTAAAAAT
GGAGTAATAATAACCTTGCTTGTAAGTTATTTTACATTTAAATGAGTTAATGCATG

38486 GGAGACCAACATTCTAAGTGAAGTAACTCAGGAATGGAAAAACCAACATTGTGTGTTCT
TACTTATAAGTGGGAGCTAAGCTATGAGGATGCAAAGGCATCCTCATTTGGACTTTGGGGA
CTTGGTGAAAAGGGTGGGGGCAGTGAGGGATAAAAGACAGCAAATTTGGGTACAGTGTACA
CTGCTCGGGTGTAGGGTGCACCAAAATTTCAAGTCACCACTAAAGAGCTTAGTCATGT
AACCAAAACACCACCTCTTCCCCAAAACCTACAGAAATAATAATAAAAAAGAACTTGTGG
[C, T]
AATCTAATTGATGATAATTGATGGTAGCATCCATGTTGGGGAAGGAAGGAAACAATGCCA
AACACTATGCTAGCTGCTTCACATGTATTGTTTTTTCAGGGGTGTAAGGCTTGAGAAGCA
TCTAGTGTCTGTGTGAGATTATGCATTCTGGAGGCAGATTGCTAAGGTTCAAGTCCTGG
CCCTGCCTGTTAGTGGCATGTTCTATGCTTTGCTTGCTTATCTGTAAAAATGGAGTAATAA
TAATACCTTGCTTGTAAGTTATTTTACATTTAAATGAGTTAATGCATGTAAAGCACTT

FIGURE 3RRR



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38576 TGCAAAGGCATCCTCATTGGACTTTGGGGACTTGGTGAAAAGGGTGGGGGCAGTGAGGGA
TAAAAGACAGCAAATTGGGTACAGTGACACTGCTCGGGTGATGGGTGCACCAAATTTTC
ACAAGTCACCACTAAAGAGCTTAGTCATGTAACCAAACACCACCTCTCCCCAAAAACCT
ACAGAAATAATAATAAAAAAGAACTTGTGGCAATCTAATTGATGATAATTGATGGTAGCA
TCCATGTTGGGGAAGGAAGGAACAATGCCAAACACTATGCTAGCTGCTTCACATGTATT
[A, G]
TTTTTCACAGGGTGTAAAGCTTGAGAAGCATCTAGTGTCTGTGCAGATTATGCATTCT
GGAGGCAGATTGCTAAGGTTCAAGTCCTGGCCCTGCCTGTTAGTGGCATGTTCTATGCTT
TGCTTGCTTATCTGTAAATGGAGTAATAATAATACCTTGCTTGTAAGTTATTTTACAA
TTTAAATGAGTTAATGCATGTAAAGCACTTGAATAGTGCCTGGTATTGTAATAAACAAT
AAATGAGCAATTTTAATGTTACTATTTTATTTTCTCCGTAGGGTGCACCTCAATAGATGG
38810 GTAGCATCCATGTTGGGGAAGGAAGGAAACAATGCCAAACACTATGCTAGCTGCTTCACA
TGTAATTGTTTTTCACAGGGTGTAAAGCTTGAGAAGCATCTAGTGTCTGTGCAGATTAT
GCATTTCTGGAGGCAGATTGCTAAGGTTCAAGTCCTGGCCCTGCCTGTTAGTGGCATGTTT
TATGCTTTGCTTGCTTATCTGTAAATGGAGTAATAATAATACCTTGCTTGTAAGTTAT
TTTTACATTTAAATGAGTTAATGCATGTAAAGCACTTGAATAGTGCCTGGTATTGTAAT
[A, G]
AACATAAATGAGCAATTTTAATGTTACTATTTTATTTTCTCCGTAGGGTGCACCTCAAT
AGATGGAAGAGTAGGGCATGTGATAAGGTTTGGCTGTGTTCTCATCCAAATCTCATTTTG
AATTGTAGCTCCCATAAATTTTCACATGTTGTGGGTGGGACCAGGTGGGAAGTAACCTGA
CATGGGGCGGTTCCCCCATACTGTTCTCGTGGTAGTGAATAAGTCTCATGAAATCTAAT
GGTTTATAAGGGGTTTTCCCTTTCACTTGATTCTCATTCTCTCTGCTGCTGCCAAGA
38825 GGGGAAGGAAGGAAACAATGCCAAACACTATGCTAGCTGCTTCACATGTATTGTTTTTCAC
AGGGTGTAAAGGCTTGAGAAGCATCTAGTGTCTGTGCAGATTATGCATTCTGGAGGCAG
ATTGCTAAGGTTCAAGTCCTGGCCCTGCCTGTTAGTGGCATGTTCTATGCTTTGCTTGCT
TATCTGTAAATGGAGTAATAATAATACCTTGCTTGTAAGTTATTTTACATTTAAATG
AGTTAATGCATGTAAAGCACTTGAATAGTGCCTGGTATTGTAATAAACAATAAATGAGC
[A, C]
ATTTAATGTTACTATTTTATTTTCTCCGTAGGGTGCACCTCAATAGATGGAAGAGTAGG
GCATGTGATAAGGTTTGGCTGTGTTCTCATCCAAATCTCATTTTGAATTGTAGCTCCCAT
AATTTTCACATGTTGTGGGTGGGACCAGGTGGGAAGTAACCTGAATCATGGGGCGGTTCC
CCCATACTGTTCTCGTGGTAGTGAATAAGTCTCATGAAATCTAATGGTTTTATAAGGGGT
TTTCCCTTTCACTTGATTCTCATTCTCTCTGCTGCTGCCAAGAAAGACGTGCCTTTCA
39317 CTCGTGGTAGTGAATAAGTCTCATGAAATCTAATGGTTTTATAAGGGGTTTTCCCTTTCA
CTTGATTCTCATTCTCTCTGCTGCTGCCAAGAAAGACGTGCCTTTCACCTTCTGCCAT
AATTGTGAGGACTTCCCAGCCACATGGAAGTGTGAGTCCATTAAAGCCTCTTTTTCTTTAT
AAATTAATTACCCAGTCTCAGGTATGTCTTTATCAGCAGTGTCAAAACAGACTAATACAA
TGTGTTATAACAAGAGTGTTACTTCAGAATCTTGTTTTAACTTGTGTATTAGTCAGTGTG
[C, T]
AGGATGCTTGGGTTCTGTCTGCTGGTTTTTGCATGTTTCCATTTTATGAGCAGTTCCTCTA
TCACAATATAGATGAATGCCTCTATCACAATATAGATGCAGCAATAAGTTGGGATTGCTG
CATAGCCATCCCAACTTATTGGCATAAAACAAGCATTTTATTATGCTCAGATAATGTGCT
TCAGGGATTATGCAGGACACAGAGGCGATGGTTTGTCTCTATTCTGCAACGTCTGGGGC
CTCACCTGGGAAGATGAGCCTCACCTGGGAAATCTACAGGTGTCTGTGGGGTTAGGGGAG
40519 TGTGCAAGATCCTGTGCTAATGGCTGTGGGAGCATATTGAGATGCCACAAGAAGTTGGCA
TGCTAAAAGGTGAAGACAAATACAGATGGCTTTCAATTAAGTCTCTGGAGAGACAGA
GGCCACTCACAACCTCTAATGATAGTTAAAATAAACTTATTACAGGCCAGGCACAGTGGC
TCAGGCCTATAATCCAGCACTTTGGGAGGCTGAGGTGGGCGGATCACTTGAGGTGAGGA
GTTCTAGACTACCCCGGCCAATGGCGAAACCCCATCTCTACTAAAAATACAGAAATTA
[A, G]
CCAGGCATGGTGGTGCAGCCTGTAAATCCCAGCTACTTGGGAGGCTGAGGCATGAGAGTC
GCTTGAATCCGGGAGGCAGAGGTTGCAGTGAACCTAAGATGGTGCCACTGCACTCCAGCCT
GGGCCACAGAGTGAGACTCCACCTCAAAAACAAACAAACAAACAAACACTATTTAAAAACA
AGACACAAAGTGAGTTAATGCAAACTTATTTAGTTAGCATTGCATTTAATGTTCAAGGAA
CACATGTTCCATTTGTAGACTTCATTAATTACAACCTAGCAGTTATTTAAGTGCTTACTA

FIGURE 3SSS



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

41468 TCTTTCTCCCGTGCTGGATGCTTCCTGCCCTCCAACATCAGACTCCAAGTTGTTTAGCTT
TTGGACTCTTGGACTTACACCAGTGGTTTGCCAGGGGCTCTCAGACTTTTGGCCACAGTG
CACTGTGCGCTTCCCTACGTTTGAGTTTTTGGGACTTGGGCTGTCTTCTTGCTCCTCAG
CTTGCGAGATGGCCTATTGTGGGACACCTTGTGATCATGTGAGTCAATACTCCTTAATAAA
TTCCCTTTTCATATGTACATCTATCCTATTAGTTCTGTCTTTCTCGAGAGCCCTGACTAAT
[A, T, G]
CAGTCATGGAGGCTGGCGTTTGTACCCAGGGTCTCCAGTCCCCAGGTGCATGCTCAATG
TGACAGGGCTAGTTAGTGCAAAGCCGGCACTAGAATCCAGGTTCTGGATTTTCTTCTTGG
TGTCTTTCTCTAGACTTGAGGTTTGAATTGTGTTCTGAATCTTTGGGTCCTAAAA
AAGTCTTGGGACCTGCTGCAGGGGTTGAGAAGAAGCAAAGCTCATGTGACTCTAGGCCCT
TACTCCAAAGTCCAACCAAGTAGCATGCTTTGAGGTAAATTATATTGTGTTAACTTAAT

41468 TCTTTCTCCCGTGCTGGATGCTTCCTGCCCTCCAACATCAGACTCCAAGTTGTTTAGCTT
TTGGACTCTTGGACTTACACCAGTGGTTTGCCAGGGGCTCTCAGACTTTTGGCCACAGTG
CACTGTGCGCTTCCCTACGTTTGAGTTTTTGGGACTTGGGCTGTCTTCTTGCTCCTCAG
CTTGCGAGATGGCCTATTGTGGGACACCTTGTGATCATGTGAGTCAATACTCCTTAATAAA
TTCCCTTTTCATATGTACATCTATCCTATTAGTTCTGTCTTTCTCGAGAGCCCTGACTAAT
[A, C, G]
CAGTCATGGAGGCTGGCGTTTGTACCCAGGGTCTCCAGTCCCCAGGTGCATGCTCAATG
TGACAGGGCTAGTTAGTGCAAAGCCGGCACTAGAATCCAGGTTCTGGATTTTCTTCTTGG
TGTCTTTCTCTAGACTTGAGGTTTGAATTGTGTTCTGAATCTTTGGGTCCTAAAA
AAGTCTTGGGACCTGCTGCAGGGGTTGAGAAGAAGCAAAGCTCATGTGACTCTAGGCCCT
TACTCCAAAGTCCAACCAAGTAGCATGCTTTGAGGTAAATTATATTGTGTTAACTTAAT

41565 CTCTCAGACTTTTGGCCACAGTGCAGTGTGCGGCTTCCCTACGTTTGAGTTTTTGGGACTT
GGGCTGTCTTCTTTGCTCCTCAGCTTGCGAGATGGCCTATTGTGGGACACCTTGTGATCAT
GTGAGTCAATACTCCTTAATAAAATCCCTTTTCATATGTACATCTATCCTATTAGTTCTGT
CTTTCTCGAGAGCCCTGACTAATGCAGTCATGGAGGCTGGCGTTTGTACCCAGGGTCTCC
CAGTCCCCAGGTGCATGCTCAATGTGACAGGGCTAGTTAGTGCAAAGCCGGCACTAGAAT
[A, C]
CAGGTTCTGGATTTTCTTCTTGGTGTCTTTTCTCTAGACTTGAGGTTTGAATTGTGTT
CCTGAATCTTTTGGGTCCTAAAAAGTCTTGGGACCTGCTGCAGGGGTTGAGAAGAAGCA
AAGCTCATGTGACTCTAGGCCCTTACTCCAAAGTCCAACCAAGTAGCATGCTTTGAGGTA
AATTATATTGTGTTAACTTAATATATGATACATAGTATAATGCAATACTTAATATATAT
TTAATATATTTGTAACATACAAAAACAATATCCAAGAGCAGTATGGAACACCAAAGGT

41625 GGGCTGTCTTCTTTGCTCCTCAGCTTGCGAGATGGCCTATTGTGGGACACCTTGTGATCAT
GTGAGTCAATACTCCTTAATAAAATCCCTTTTCATATGTACATCTATCCTATTAGTTCTGT
CTTTCTCGAGAGCCCTGACTAATGCAGTCATGGAGGCTGGCGTTTGTACCCAGGGTCTCC
CAGTCCCCAGGTGCATGCTCAATGTGACAGGGCTAGTTAGTGCAAAGCCGGCACTAGAAT
CCAGGTTCTGGATTTTCTTCTTGGTGTCTTTTCTCTAGACTTGAGGTTTGAATTGTGT
[A, T]
CCTGAATCTTTTGGGTCCTAAAAAGTCTTGGGACCTGCTGCAGGGGTTGAGAAGAAGCA
AAGCTCATGTGACTCTAGGCCCTTACTCCAAAGTCCAACCAAGTAGCATGCTTTGAGGTA
AATTATATTGTGTTAACTTAATATATGATACATAGTATAATGCAATACTTAATATATAT
TTAATATATTTGTAACATACAAAATACAATATCCAAGAGCAGTATGGAACACCAAAGGT
GTTCCAGACTTTTTTTTTTGAGACAGTCTCGCTCTGTCAACAGGCTGGAGTGTGGTGGTGC

41921 GTGTTCTGAATCTTTTGGGTCCTAAAAAGTCTTGGGACCTGCTGCAGGGGTTGAGAAG
AAGCAAAGCTCATGTGACTCTAGGCCCTTACTCCAAAGTCCAACCAAGTAGCATGCTTTG
AGGTAAATTATATTGTGTTAACTTAATATATGATACATAGTATAATGCAATACTTAATA
TATATTTAATATATTTGTAACATACAAAATACAATATCCAAGAGCAGTATGGAACACCAA
AAGGTGTTACAGACTTTTTTTTTTGAGACAGTCTCGCTCTGTCAACAGGCTGGAGTGTGGT
[G, C, T, A]
GTGCAATCTCAGCTCACTGCAACCTCTGCCTCCCTGGTTCAAGCAATTCTCCTGCCTCAG
CCTCCTGAGTAGCTGGGACTACAGGTGCCACCACCATGCCTGGCTAATTTTTTTTTTGTA
TTTTTGGTAGAGACGGGGTTTACCATGTTGGCCAGGACGGTCTCGATCTCTTGACCTCG
TGATCCACCTGCCTTGGCCTCCCAAAGTACTGGGATTACAGGCGTGAGCCCTTCTTCA
AATGGAATTTTATATCTGTGTTTACATTTTCTGCTTAAAGTTTGAATTTTGTTTAATTCA

FIGURE 3TTT



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42152

GAACACCAAAAGGTGTTTCAGACTTTTGTGAGACAGTCTCGCTCTGTCAACCAGGCTG
GAGTGTGGTGGTGAATCTCAGCTCACTGCAACCTCTGCCTCCCTGGTTCAAGCAATTCT
CCTGCCTCAGCCTCCTGAGTAGCTGGGACTACAGGTGCCACCACCATGCCTGGCTAATT
TTTTTTGTATTTTGGTAGAGACGGGGTTTCACCATGTTGGCCAGGACGGTCTCGATCT
CTTGACCTCGTGATCCACCTGCCTTGGCCTCCCAAAGTACTGGGATTACAGGCGTGAGCC
[C, A]
CTTCCTTCAAATGGAATTTTATATCTGTGTTTACATTTTCTGCTTAAAGTTTGAATTTTG
TTTAATTCAATTGAATTTCCACTTAAATGTAAACTTTTGAAACCACACCTCTGACATA
TTCCACATTGCTGTTGGATATTTTAGTTTAAAGATTGGCCTGTAAGCTGTATCGGTAT
CATTATTCTAACTTCAGGCTCAAGGTCTCAGTCACTAGTTAAAGTCTTTTCTACCGGCAA
ATCTGTATTACCATCTACTGTGGAAGATAACCTCTAAAGTGCCCATGTAAGCACAAATCC

42498

AAAGTTTGAATTTTGTGTTAATTCAATTGAATTTCCACTTAAATGTAAACTTTTGAAACC
CACACCTCTGACATATTCACATTGCTGTTGGATATTTTAGTTTAAAGATTGGCCTGT
AAGCTGTATCGGTATCATTATTCTAACTTCAGGCTCAAGGTCTCAGTCACTAGTTAAAGT
CTTTTCTACCGGCAAATCTGTATTACCATCTACTGTGGAAGATAACCTCTAAAGTGCCCA
TGTAAGCACAAATCCATAAACTAAAGTCAAAGAAAAAGAGAAAGAGTTTATTCCACT
[G, T]
TTTAAAGTTCAGTTTGATTTAGATCTTATATCTCTTGGGTTTTCTTGACTGATTTTTTA
CATAAATGTGTCCAGAAAGAGTGATCATATCGTGATCTTTGTTCCAGTTTTCTTTTC
CACATCAAGTTTCTCGATGGAAAGTGATTTAAAAAACCTTAAAGTGTGATAATCATC
CTCTTCTTTAGTAGACAGTGGAGTTTAATAGATGCATACAGCAGTTGTTTACTTGTGATG
AAAAGAAATGTGAATTTTCTGGTGAAGGACATTTCTAGCTCATGTCTAAATTGCAGAGA

42715

GAAGATAACCTCTAAAGTGCCCATGTAAGCACAAATCCATAAACTAAAGTCAAAGAAA
AAAGAGAAAGAGTTTATTCCACTGTTTAAAGTTCAGTTTGATTAGATCTTATATCTCT
TGGGTTTTCTTGACTGATTTTTACATAAATGTGTCCAGAAAGAGTGATCATATCGTGA
TCTTTGTTCCAGTTTCTTTTCCACATCAAGTTTCTGATGGAAAGTGATTTAAAAAA
AACCTTAAAGTGTGATAATCACTCTCTTTTAGTAGACAGTGGAGTTTAATAGATGCA
[T, G, A, C]
ACAGCAGTTGTTTACTTGTGATGAAAAGAAATGTGAATTTTCTGGTGAAGGACATTTCT
AGCTCATGTCTAAATTGCAGAGAGACCACAGTTTGACATAGTGCTGAAGCAGGTTGTAAG
AGGTAGGGGTACAATGTATGTCTGCACAGGTTGTGCACTATGCGACTGTGAATGGTGTCT
TCTGGAATTGTCTATGCGGAAGCACTGTGAGAGGTCGTGGATTCCAGCCTCTGTTGATT
TTTGTGCATGGGAGAGCTTGATACCAAGCCTCAAAGTACTAGGAATAAGAAGGTATTACA

42776

AAGAGAAAGAGTTTATTCCACTGTTTAAAGTTCAGTTTGATTAGATCTTATATCTCTT
GGGTTTCTTGACTGATTTTTTACATAAATGTGTCCAGAAAGAGTGATCATATCGTGAT
CTTTGTTCCAGTTTCTTTTCCACATCAAGTTTCTGATGGAAAGTGATTTAAAAAA
ACCTTAAAGTGTGATAATCACTCTCTTTTAGTAGACAGTGGAGTTTAATAGATGCAT
ACAGCAGTTGTTTACTTGTGATGAAAAGAAATGTGAATTTTCTGGTGAAGGACATTTCT
[T, C, A]
GCTCATGTCTAAATTGCAGAGAGACCACAGTTTGACATAGTGCTGAAGCAGGTTGTAAGA
GGTAGGGGTACAATGTATGTCTGCACAGGTTGTGCACTATGCGACTGTGAATGGTGTCTT
CTGGAATTGTCTATGCGGAAGCACTGTGAGAGGTCGTGGATTCCAGCCTCTGTTGATT
TTGTGCATGGGAGAGCTTGATACCAAGCCTCAAAGTACTAGGAATAAGAAGGTATTACAT
GCTGTAATTTTCAAGGTGGTGCCTTTCTGTACCTCCATTGCTTTTAGTTTAGGGCATTTC

43320

GTAATTTTCAAGGTGGTGCCTTTCTGTACCTCCATTGCTTTTAGTTTAGGGCATTTCCTC
TGCAATCTTTGGAGGGTTCCTAGGAATAAAAAAGTAGCTAGTTTGAGACAGTGTGCAATT
GTGCTGAAATGGAGGACCATGGGGGTAGATGTAGTTCCCTTCATGCCAGTAGCTAATTGG
CTTAGTTTGTCTGATTGTTCCAGGATATTCCCTAAAAATAGGTGTCTTCTAAGCCTCAGC
TTTGGGCCTTGAGGTATGGCATGGCTATCCGCTCTCTGCTCCTGCTGAGCTAAATGCAGT
[G, T, C]
CTGAATGCCAAATATTGAGATTGGAATTATCAAAGGACTATTAGCATCAAATTGAGAAA
CTCAAGCTAAATTGCAAATTAATACAAAATCATGAAGTGAAGCTTCTCTTCCAGAGAACC
TCTTGTAACAGAACTGAAGGTGGCAGGATGTCTTGATAGAGCGTGGATTTTAGAGCTGG
ATGCATGCTGGGCTTATATCCTGGTTCCAGCATTTGCCTTGGGCAAGTTATTTACAACT
CTGGTTGAGGTGGTGGACTAGTTGATATCTATGATTCTTTTAAAGTAAATAACTATTA

FIGURE 3UUU



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Title: ISOLATED HUMAN TRANSPORTER...

43341

TTCTGTACCTCCATTGCTTTTAGTTAGGGCATTCTTCTGCAATCTTTGGAGGGTTCCCT
AGGAATAAAAAAGTAGCTAGTTTGGAGACAGTGTGCAATTGTGCTGAAATGGAGGACCATG
GGGGTAGATGTAGTTCCCTTCATGCCAGTAGCTAATTGGCTTAGTTTGCTGATTTGTTCC
AGGATATTCCCTAAAAATAGGTGTCTTCTAAGCCTCAGCTTTGGGCCTTGAGGTATGGCA
TGGCTATCCGCTCTCTGCTCCTGCTGAGCTAAATGCAGTCCTGAATGCCAAATATTGAGA
[A, T]
TTGGAATTATCAAAGGACTATTAGCATCAAATTGAGAACTCAAGCTAAATTTGCAAATT
AATACAAAATCATGAACCTGAGCTTCTCTCCAGAGAACCTCTTGTAAACAGAACTTGAAGG
TGGCAGGATGTCTTGATAGAGCGTGGATTTTAGAGCTGGATGCATGCTGGGCTTATATCC
TGGTTCCAGCATTGCTTGGGCAAGTTATTTACAACCTCTGGTTGAGGTGGTTGGACTA
GTTGATATCTATGATTCTTTTTAAGTAAATAACTATTAGTTTTTTCATACAGTATAATT

43424

GAGACAGTGTGCAATTGTGCTGAAATGGAGGACCATGGGGGTAGATGTAGTTCCCTTCAT
GCCAGTAGCTAATTGGCTTAGTTTGCTGATTTGTTCCAGGATATTCCCTAAAAATAGGTG
TCTTCTAAGCCTCAGCTTTGGGCCTTGAGGTATGGCATGGCTATCCGCTCTCTGCTCCTG
CTGAGCTAAATGCAGTCCTGAATGCCAAATATTGAGATTGGAATTATCAAAGGACTATT
AGCATCAAATTGAGAACTCAAGCTAAATTTGCAAATTAATACAAAATCATGAACCTGAGC
[A, G, T]
TCTCTTCCAGAGAACCTCTTGTAAACAGAACTTGAAGGTGGCAGGATGTCTTGATAGAGCG
TGGATTTTAGAGCTGGATGCATGCTGGGCTTATATCCTGGTTCCAGCATTGCTTGGGC
AAGTTATTTACAACCTCTGGTTGAGGTGGTTGGACTAGTTGATATCTATGATTCTTTT
AAGTAAATAACTATTAGTTTTTTCATACAGTATAATTACTATATAACAAACATCTCTTC
TTTGATTTTCATTCATGCATTCAAAGTATTTATTAATGCCCTCCAATGCCGGACACCATA

43509

CTGATTTGTTCCAGGATATTCCCTAAAAATAGGTGTCTTCTAAGCCTCAGCTTTGGGCCT
TGAGGTATGGCATGGCTATCCGCTCTCTGCTCCTGCTGAGCTAAATGCAGTCCTGAATGC
CAAATATTGAGATTGGAATTATCAAAGGACTATTAGCATCAAATTGAGAACTCAAGCT
AAATTTGCAAATTAATACAAAATCATGAACCTGAGCTTCTCTTCCAGAGAACCTCTTGTA
CAGAACTTGAAGGTGGCAGGATGTCTTGATAGAGCGTGGATTTTAGAGCTGGATGCATGC
[A, G, T]
GGGCTTATATCCTGGTTCCAGCATTGCTTGGGCAAGTTATTTACAACCTCTGGTTGAG
GTGTTGGACTAGTTGATATCTATGATTCTTTTTAAGTAAATAACTATTAGTTTTTTCA
TACAGTATAATTACTATATAACAAACATCTTCTCTTTGATTTCATTTCATGCATTCAAAG
TATTTATTAATGCCCTCCAATGCCGGACACCATACTAGGTACTGGGTATATAAGAGTGA
ACCAAATGAGCAGGGTTTCTGCCCTCAGGGAGTTGATAATCTAGTGGGGAAGGTGTTGGG

44584

CTTACTCAGGGGAAGGTGAGCCATTTGTTCTATTGAGGCTCCAACCGATAGGATGTGG
ACCACCTATGTCTGGGAGAAATCTGCTTTACTCACTCTGCTAACTTAAATATGAATCCC
ATCAGAAAGCACCCTCACAGAAGTACCCAGAATAATGTTTGACCAAATATCTAAGCATCC
TCTGACACAGTCAAGTTGTACATAAAATGAACATCCTAGGCTACTTAGAGTAGTCAGA
AGATACCTCTCTGACATGGTAACATTTAAACTGAGACCCAAAGAATGGGAAGGAGCCAGC
[C, T]
GTGGAAGAATGGGGACAGGCCTTCCAGGCAGAAAGAACTGAGTGGTAACCGAGTGGA
ACTGAATGGAACTGGAGTCCAGAGGGAAAAGGGGCATGTTGTGAGATGAAATTAGAGAG
GGGACAGAGGCTTACTGTGACACCTTGAAGCCATGATAAGGGGCTTGCATTTTATTCT
AGATGCAACGATGAGAGGCACTGAGTTTGAGCACCTTGAAGCCATGATAAGGGGCTTGC
ATTTTATTCTAGATGCAGTGATGAGAGGCACTGAAAAGTTTGAGCAAGGAGGAATGTGAG

46250

CCATGATTCAATTACCTCCCCCTGGGTTCTCCCAACACATGGGAATTCTGGGAGATA
CAGTTCAAGTTGAGACTTGGGTGGGAACACAGCCAAATCATATCACCAGTTTAGTACTT
CACTATGTTTTTGGCCAATTATGTTGGGTAGGGGATGGTTGTGCTCCTCCTGTCCCTTAC
CTTAGAGCTGGCAGATAAAATACCAGATATCCAGTTAAATTTGAATTTTCAGAAAACCTTT
TAAAAAAGTATAAGTATATCCCAATATTGCATGGGATATACTTACCCTTTAAAAATTTT
[A, C, T, G]
TTGCTATTGTTTTTCTGCAATTCAAATTTCACTGGGTGTCTGTATTTTTGTTTCTGAA
TCTGGTAGCACACATTGAATTGCACCCTTTAAATGGCTAGAATAGGGAATTTTATGTTA
TGTGCATTGTAACACACACACACACACACACACACACACACACACACATCTGGC
AATTCTCCCTTAACTAACTACCATGTAGAAGCTACCATGCGATGCAGTCTATTTCTAGG
TTTAGCCACAAGGGTCAATAAGAAAATCTGACCTCAAAGGAAATTATGTCTGGTGATGGT

FIGURE 3VVV



Docket No.: CL000858
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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

46287 ACACATGGGAATTCTGGGAGATACAGTTCAAGTTGAGACTTGGGTGGGAACACAGCCAAA
TCATATCACCAGTTTAGTACTTCACTATGTTTTTGGCCAATTATGTTGGGTAGGGGATG
GTTGTGCTCCTCCTGTCCCTTACCTTAGAGCTGGCAGATAAAATACCAGATATCCAGTTA
AATTTGAATTTTCAGAAAACCTTTTTAAAAAGTATAAGTATATCCCAAATATTGCATGGGA
TATACTTACCCTTTAAAAATTTTATTGCTATTGTTTATCTGCAATTCAAATTTCACTGGG
[C, T]
GTCCTGTATTTTTGTTTCTGAATCTGGTAGCACACATTGAATTGCACCCCTTTAAAAATGG
CTAGAATAGGGAATTTTATGTTATGTGCATTGTAAACACACACACACACACACACACAC
ACACACACACACACGTATCTGGCAATTCTCCCTTAACTAACTACCATGTAGAAGCTACC
ATGCGATGCAGTCTATTTCTAGGTTTAGCCACAAGGGTCAATAAGAAAATCTGACCTCAA
AGGAAATTATGTCTGGTGATGGTTAATGCTTCTACTAAATCCCTTAGAGCATAGGATGC

46566 TGCAATTCAAATTTCACTGGGTGTCTGTATTTTTGTTTCTGAATCTGGTAGCACACAT
TGAATTGCACCCCTTTAAAAATGGCTAGAATAGGGAATTTTATGTTATGTGCATTGTAAAC
ACACACACACACACACACACACACACACACACACGTATCTGGCAATTCTCCCTTAACT
AACTACCATGTAGAAGCTACCATGCGATGCAGTCTATTTCTAGGTTTAGCCACAAGGGT
CAATAAGAAAATCTGACCTCAAAGGAAATTATGTCTGGTGATGGTTAATGCTTCTACTAA
[A, C, T, G]
TTCCCTTAGAGCATAGGATGCTGAGCCCATAGTAGGACCTCATCAAATGCTGGTTTGATA
GAAATTGCATTTGGGGAAAATTAGCAGCTGTTGATAACTGAATGGAAAGAAATGAACTAC
CCTGGTACCTGTGGTACAACCTTAAAGAACACCATGAAATGGGCCCTCATGGGAGGTTCTCA
ATGAATTCAGTGGCTGGCACTTTTGGGCATGCTTTTGGAAACCAAGTACTTACTCCATGT
GCCTGTGAGTTTGGCACCTCTCATGGCAGCCCAAGTGCAACTGGTTTCTGAGGGGCCATT

46653 ATAGGGAATTTTATGTTATGTGCATTGTAAACACACACACACACACACACACACACACACA
CACACACACGTATCTGGCAATTCTCCCTTAACTAACTACCATGTAGAAGCTACCATGCG
ATGCAGTCTATTTCTAGGTTTAGCCACAAGGGTCAATAAGAAAATCTGACCTCAAAGGAA
ATTATGTCTGGTGATGGTTAATGCTTCTACTAAATCCCTTAGAGCATAGGATGCTGAGC
CCATAGTAGGACCTCATCAAATGCTGGTTTGATAGAAATTGCATTGTTGGGAAAATTAGCA
[G, A]
CTGTTGATAACTGAATGGAAAGAAATGAACTACCCTGGTACCTGTGGTACAACCTTAAAGA
ACACCATGAAATGGGCCTCATGGGAGGTTCTCAATGAATTGAGTGGCGTGGCACTTTTGG
GCATGCTTTTGGAAACCAAGTACTTACTCCATGTGCCTGTGAGTTTGGCACCTCTCATGGC
AGCCCAAGTGCAACTGGTTTCTGAGGGGCCATTAAAAATCTCCCAATGGCAGACAACCTCT
CAGACATGCCTGCAAATTCAGACAGCCAGGCTGATCATCTGCTACTTTAATTGGTTAT

47153 TCTGAGGGGCCATTAAAAATCTCCCAATGGCAGACAACCTCTCAGACATGCCTGCAAATTC
CAAGACAGCCAGGCTGATCATCTGCTACTTTAATTGGTTATACCAGTTTTTATGCCTTTG
TTTCTCCTCCTTTCTGTGAGGTGGAGGAAACATAACCACAAGACTGTTTCCAGTGACCTC
TTCAGAGGCAATTTCCAAGCAATTAAGTATGGGTTGAATCCAAAGTGATTTGATGAATTA
AATTCTGTTTCTTGGCTGAAGATTCTGTTTCTTGGCTGACACCTGAACTCAAAGGTTAGA
[T, A]
TGAATATCTAGGAAAACGGTTTTTCTCTTGTGTTTTCTGTCAGGCTTTGCTGTTTACGA
AGATCTTGCATCAACACTTAGCATTCACTCACATGGCAAGCTTGCATGTGGTACTTTTCAT
TCCACATTAATTTAGGGAACCTTACTATGTGCCAGCATTCAATATCCAATTTGTCTTAGA
TTTTCGAATAGTGTCCCACAATTTTATAACTGGGGAGTTCCTTGAATGGAAATATGTTCA
CAGTGGCTGCTTAATTGTGACTAACCCATCACATAGAGACTGCTTTGGTAATAGATTGA

47171 ATCTCCCAATGGCAGACAACCTCTCAGACATGCCTGCAAATTCAGACAGCCAGGCTGAT
CATCTGCTACTTTAATTGGTTATACCAGTTTTTATGCCTTTGTTTCTCCTCCTTTCTGTG
AGGTGGAGGAAACATAACCACAAGACTGTTTCCAGTGACCTCTTCAGAGGCAATTTCCAA
GCAATTAAGTATGGGTTGAATCCAAAGTGATTTGATGAATTAATTTCTGTTTCTTGGCTG
AAGATTCTGTTTCTTGGCTGACACCTGAACTCAAAGGTTAGATTGAACTATCTAGGAAAA
[C, T]
GGTTTTTCTCTTGTGTTTTCTGTCAGGCTTTGCTGTTTACGAAGATCTTGCATCAACACT
TAGCATTCACTCACATGGCAAGCTTGCATGTGGTACTTTTATTCCACATTAATTTAGGGA
ACTTACTATGTGCCAGCATTCAATATCCAATTTGTCTTAGATTTTGAATAGTGTCCCA
CAATTTTATAACTGGGGAGTTCCTTGAATGGAAATATGTTTACAGTGGCTGCTTAATGTG
GACTAACCCATCACATAGAGACTGCTTTGGTAATAGATTGATTCTGAGGGTCTAGGAGA

FIGURE 3WWW



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47216 GACAGCCAGGCTGATCATCTGCTACTTTAATTGGTTATACCAGTTTTTATGCCTTTGTTT
CTCCTCCTTTCTGTGAGGTGGAGGAAACATAACCACAAGACTGTTTCCAGTGACCTCTTC
AGAGGCAATTTCCAAGCAATTAAGTATGGGTTGAATCCAAGTGTATTGATGAATTAAT
TCTGTTCTTTGGCTGAAGATTCTGTTCTTTGGCTGACACCTGAACCTCAAAGGTTAGATTG
AACTATCTAGGAAAAAGGTTTTTCTCTGTGTTTTCTGTCAGGCTTTGCTGTTTACGAAG
[A, T]
TCTTGCAATCAACACTTAGCATTCACTCACATGGCAAGCTTGCATGTGGTACTTTTCATTCC
ACATTAATTTAGGGAACCTACTATGTGCCAGCATTCAATATCCAATTTGTCTTAGATT
TCGAATAGTGTCCCAATTTTATACTGGGGAGTTCTTGAATGGAAATATGTTACAG
TGGCTGCTTAATTGTGACTAACCCATCACATAGAGACTGCTTTGGTAATAGATTGATTCT
TGAGGGTCTAGGAGAAGGGACACTTCTCATATGGGGAAGACGGGATTAATCCTTGAAAT

47484 GTGTTTTCTGTCAGGCTTTGCTGTTTTACGAAGATCTTGCATCAACACTTAGCATTCACTC
ACATGGCAAGCTTGCATGTGGTACTTTTCATTCCACATTAATTTAGGGAACCTACTATGT
GCCAGCATTCAATATCCAATTTGTCTTAGATTTCGAATAGTGTCCCAATTTTATAAC
TGGGGAGTTCTTGAATGGAAATATGTTACAGTGGCTGCTTAATTGTGACTAACCCATC
ACATAGAGACTGCTTTGGTAATAGATTGATTCTGAGGGTCTAGGAGAAGGGACACTTCT
[T, C]
ATATGGGGAAGACGGGATTAATCCTTGAAATGATACTGAAGCCAACCTTCTGTACCAGTA
TAGCAGCTTAGCAGACTTCTATATGATCCATGTAAGGGTCTGTTTGTCTCTGAGATTTT
GGGTGCTTCTCTAGCCCTGAGTGCTGGGCTTCTTCTGAATTCATAGGGGTGGAGGTG
AAGGTACCGCCAGCTCTCACCCAACCTCATCCCTGGACAGCAGGATTCTGCTCATC
ACCTTGGTGCCTCCGATGCCTGAAGCACAATAGGCCCTCAGCAAACATTTGTTGAATTCA

47668 GAGTTCCTTGAATGGAAATATGTTACAGTGGCTGCTTAATTGTGACTAACCCATCACAT
AGAGACTGCTTTGGTAATAGATTGATTCTGAGGGTCTAGGAGAAGGGACACTTCTCATA
TGGGGAAGACGGGATTAATCCTTGAAATGATACTGAAGCCAACCTTCTGTACCAGTATAG
CAGCTTAGCAGACTTCTATATGATCCATGTAAGGGTCTGTTTGTCTCTGAGATTTGGG
TGCTTCTCTAGCCCTGAGTGCTGGGCTTCTTCTGAATTCATAGGGGTGGAGGTGAAG
[G, A]
TACCGCCAGCTCTCACCCAACCTCATCCATCCCTGGACAGCAGGGATTCTGCTCATCACCT
TGGTGCCTCCGATGCCTGAAGCACAATAGGCCCTCAGCAAACATTTGTTGAATTCATGCC
ATGAACATTAATCGAGCCCTTTTTATACACTGTGCACTGGGATTGGGACCATGGAAAATT
TAGAGAGGAAAAGGTCCACCTTCAAGGGGCATCTAGAGGAACTTATCCTCTAGCAGGAGA
AATTGCTAATGAGAAAAGGTATTTTGGGGAGTGGAGTGAGGTGTTGGTCTAGCTGGCAGG

47698 GGCTGCTTAATTGTGACTAACCCATCACATAGAGACTGCTTTGGTAATAGATTGATTCT
GAGGGTCTAGGAGAAGGGACACTTCTCATATGGGGAAGACGGGATTAATCCTTGAAATG
ATACTGAAGCCAACCTTCTGTACCAGTATAGCAGCTTAGCAGACTTCTATATGATCCATGT
AAGGGTCTGTTTGTCTCTGAGATTTTGGGTGCCTTCTCTAGCCCTGAGTGCTGGGCTT
CTTCTGAATTCATAGGGGTGGAGGTGAAGGTACCGCCAGCTCTCACCCAACCTCATCCAT
[C, T]
CCTGGACAGCAGGGATTCTGCTCATCACCTTGGTGCCTCCGATGCCTGAAGCACAATAGG
CCCTCAGCAAACATTTGTTGAATTCATGCCATGAACATTAATCGAGCCCTTTTTATACAC
TGTGCACTGGGATTGGGACCATGGAAAATTTAGAGAGGAAAAGGTCCACCTTCAAGGGGC
ATCTAGAGGAACTTATCCTCTAGCAGGAGAAATTGCTAATGAGAAAAGGTATTTTGGGGA
GTGGAGTGAGGTGTTGGTCTAGCTGGCAGGTTACGCTATGCTCAGTGGCTCTCTGGTAT

48029 TGGTGCCTCCGATGCCTGAAGCACAATAGGCCCTCAGCAAACATTTGTTGAATTCATGCC
ATGAACATTAATCGAGCCCTTTTTATACACTGTGCACTGGGATTGGGACCATGGAAAATT
TAGAGAGGAAAAGGTCCACCTTCAAGGGGCATCTAGAGGAACTTATCCTCTAGCAGGAGA
AATTGCTAATGAGAAAAGGTATTTTGGGGAGTGGAGTGAGGTGTTGGTCTAGCTGGCAGG
TTCAGCCTATGCTCAGTGGCTCTCTGGTATGGAAAATTCCTCAGAAATGTTGATTAGCCA
[A, T]
AGATTTCTCTGGCAGCACTGACTCTTGCCTTCTTTCGGCCACATTTTATTTCCCAAACCT
AGGTGTTACTGGGAAGAGACTGAGCTGTTTTATTGAAGATAATTGACTTTCCAGTTTTT
AAGTAAGTCTGTTGATTCCTCGAAGACTTCACTAATCAGAGTTATGAATATTTCAAAAAC
ACTTCCAGTCTTCAGATGAATGGATTTGTAGGTTTTCTACATTGCTGTCTCCCTAGCCC
CATGAGGAATAATGTGGGTATCCTTTTCCCTTTTAGGTTTCTCTTCTTCTAACCTGCG

FIGURE 3XXX



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

49334

TGAGGCTGCCTGGTTTCTGTAGCAGTGTTTCTGAGCAGCTGTGACTCTGAGCAGAGAGAAGG
AATATTATACAGGGATATTTCCAGGTAGCTCCAGGAAAAGACAAAAGGGGAGGAAGTTGA
GTCTGTAGCTAAAGAGCAGTGTTGAATATGGGATCCAAGTTGGGTGGAGAAGAGAAAGA
GAACACAGGGAGGGTAGGATGACAGGAGAAAGTAGAGGCAGGGTATGATGTGGGAGCGAT
GAGGGTAGCAAGCTGGAAGAGAGGATGATCTAGTCAATGTCTTAGTGTGCCTTAGGGCT
[A, G]
CTATAATGAAATACCATAGACTGAGTAGCTTTTGCACAACAGAAATTTATTTCTCATGGT
TCTGGAGGCTGGGAAGATCAAGATATCAAGGCAGATTTCAGTGTCTGGCAAGGATCTGGTA
CCTGATTGACAGACAGCTGTCTTCTGCTGTGTCTCACTCGGTGGAAGGACCAAGAGAT
CTCTCTGGGTTCTCTTTATAAGGGCATGAATCCAATTCATGAGGGCTCAGCCCTCACCA
TCTAATCACCCCCCAAAGCCCCCACCTCCTAATCCCATCACATTGAGGGTTAGATTTCAG

49680

TTTATTTCTCATGGTTCTGGAGGCTGGGAAGATCAAGATATCAAGGCAGATTTCAGTGTCT
GGCAAGGATCTGGTACCTGATTGACAGACAGCTGTCTTCTGCTGTGTCTCACTCGGTG
GAAGGACCAAGAGATCTCTCTGGGTTCTCTTTTATAAGGGCATGAATCCAATTCATGAGG
GCTCAGCCCTCACCATCTAATCACCCCCCAAAGCCCCCACCTCCTAATCCCATCACATTG
AGGGTTAGATTTTCAGTGTGTGAATTTTGGGGGACACAAAATTCAGACCGTAGCAGTAAT
[C, G]
GCTTCAACTGAGTATTGAGACAGTTCTTGTGGTAACAAGGTTTAGGGTGTGGCCATAGGG
AGACTCAGCTGTAGTGGAGCTGTTGGGGCTGTGCCAAGGTCACCCAGATCCGTTTGTTC
TGTGCACCTGTCTTTAGCTTCTGGGGCTTCTCTCTTTCTGGCCTGTACCTACAGCCTT
TTTCAGAGGACTCTCTTGGTCTACCGGAGCCTATTTTCAGGATGTTCTTAGGAGTTTTT
TGAGATGGAGTCTCCCTCTGTGCGCCAGGCTGGAGTGCAGCGGCACAATCTCAGCTCACT

50056

GGAGCTGTGGGGCTGTGCCAAGGTCACCCAGATCCGTTTTGTTCTGTGCACCTGTCCTT
TAGCTTCTGGGGGCTTCTCTCTTCTGGCCTGTACCTACAGCCTTTTTCAGAGGACTCTC
CTTGGTCTACCGGAGCCTATTTTCAGGATGTTCTTAGGAGTTTTTTCAGATGGAGTCTCC
CTCTGTGCGCCAGGCTGGAGTGCAGCGGCACAATCTCAGCTCACTCCAACCTCCACCTCC
TAGGTTCAAGCCATTCTCCAGCCTCAGCCTCCCAAGTAGCTTAGATTACAAGCATGCACC
[A, G]
CTATGCCTGGCTAATTTTTTTTTTTTTTTTTTTTTTTTGTATTTTAGCAGAGCTGGGACT
TCGCCATGTTGGCCAGGCTGGTCTCAAACTCCTGACCTCAGGTGATCCCCTGCCTCGGCC
TCACAAAGTGCTGGGATGACAAGCATGAGCCACTGCGCCTGGCCATCCTAGGAGTTTGTA
TCACCCACTCCTTCACGGTTTGTCTGGAGGGATCTCTAAATAAATAACTCACAAACAAA
TTCTCATCCGGATCTGCTTCTGGGATACCTGCCCTGAGTTAGTGGTTGAGATGGAATGG

51020

AGGGGCCCTGAAGAGGCTGGGGGCATGAGGGAGTCTTCAGATCTTCAGAGGGGGCCCTG
AGGCATCTTTGGAATGGTTTGGGGTAGGGGTGAGGGGAAGGTTGGATCAGAGGGGAGGAG
GCTGAGAGCAGAAGAGAGAACAAGCTACACCAAGTGGCCTCACTGGCCTCACACTTCTC
AGAATTGGTCCCTTCAGACCCGGTGGTGGGTGGCTTGGCAGCCTGGATGTGGGGTGTGGA
GATTGGTACTACTCTGGCACACAGGGGGCATGCATTGGTTGAATAAACAATGAATGAC
[A, T, G, C]
CATCAAGTTTGTAGATGCCCCACCTTTTCATCATTTCTGAACCATTTGCACTTCCATGTAT
TTTATGGTCTGATAAATATGGAATTAATCGAAGTACCTCTAGCTATTTGTTATCACCATT
ATTGGGTGGGACACAGCGAACAGATTCTTAAAGCTAGGGAATTATGCAATAGGACATGT
TACGGACTTAAGCCATAAGATCCTTTTTTTTTTTTTTTTTTTTTTTTTTTTAGATAGA
GTCTCACTCTGTACCCAGGCTAAAGTGCAGTGGTGAATGTCGACTCACTGCAACCTCC

53750

ATGTCTTTCTGTCCCCACACCTCTGTCAAACACAGCATCTGCACGCTTTGTTGCATTG
CTTGATAGAACACGTAGTTTTCTTACCTCCTAATAATGTGGACAGCTCACGTTGATTG
AGGACTTGCTTTGAACAAGGCATTGAGCAACATGCCGTACATTTTATGTTAAATCTTCCC
AATAGTGCTACTGCTTCTGTCCCTTTCAGGGAGGAGGAAGGAGGCTTGGAGAAGGGACT
GTCTTTTAGGAGCCCTGCCAGTGTTCCTGTGGAGGGTGGGGCCATCGTGGAAGACAGA
[G, T, C]
CTATGGTAGGGGTAAAGCTGGGTGGCTGTGTAAGTCCAACCTTCCCCCTTCTTCTCTAAC
CCTGATAACCTTGTCTCTGGGGCTGTCTGCTAGTGGAGAGGCTTCTGACTTTTTTTTTT
TTTTTTGCCATACCTTTGGTTTATAAATAACAAGAAGAGATTGGGGGAAAATCAGGGGAA
ACTGTGAGCTTACAAGTCCCAGAGGAAGTCACTGCTCCTTTAAGTCTCATGTGAACC
CCTTGTCTCTCCCCAGCTTGTGGGGTGAAAGAAAAGCCCTTTAGTCTTTTGGGTCTCTCA

FIGURE 3YYY



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53753

TCTTTCTGTCCCCACACCTCTGTCAAACACAGCATCTGCACGCTTTGTTGCATTTGCTT
GCATAGAACACGTAGTTTTCTTCCACCTCCTAATAATGTGGACAGCTCACGTTGATTGAGG
ACTTGCTTTGAACAAGGCATTGAGCAACATGCCGTACATTTTATGTTAAATCTTCCCAAT
AGTGCTACTGCTTCTGTCCCTTTCCAGGGAGGAGGAAGGAGGCTTGGAGAAGGGACTGTC
TTTAGGAGCCCTGCCAGTGTTTCTGTGGAGGGTGGGGCCATCGTGGAAGACAGACCT
[A, T, C, G]
TGGTAGGGGTAAGCTGGGTGGCTGTTGAAGTCCAACCTTCCCCCTTCTTCTCTAACCTT
GATAACCTTGTCTCTGGGGCCTGTCTGCTAGTGGAGAGGCTTCTGACTTTTTTTTTTTT
TTTGCCATACCTTTGGTTTATAAATACAAGAAGAGATTGGGGGAAAATCAGGGGAACT
GTCGAGCTTACAAGTCCCGAGAAGGAAGTCACTGCTCCTTTAAGTCTCATGTGAACCCCT
TGTTCTCTCCCCAGCTTGTGGGTGAAAGAAAAGCCCTTTAGTCTTTTGGGTCCTCAAAT

53799

TGTTGCATTGCTTGCATAGAACACGTAGTTTTCTTCCACCTCCTAATAATGTGGACAGCT
CACGTTGATTGAGGACTTGCTTTGAACAAGGCATTGAGCAACATGCCGTACATTTTATGT
TAAATCTTCCCAATAGTGCTACTGCTTCTGTCCCTTTCCAGGGAGGAGGAAGGAGGCTTG
GAGAAGGGACTGTCTTTAGGAGCCCTGCCAGTGTTTCTGTGGAGGGTGGGGCCATCG
TGAAGACAGACCTATGGTAGGGTAAGCTGGGTGGCTGTTGAAGTCCAACCTTCCCCCT
[C, A, T]
CTTCTCTAACCTTGATAACCTTGTCTCTGGGGCCTGTCTGCTAGTGGAGAGGCTTCTG
ACTTTTTTTTTTTTTTTTGGCCATACCTTTGGTTTATAAATACAAGAAGAGATTGGGGGAA
AATCAGGGGAACTGTGAGCTTACAAGTCCCGAGAAGGAAGTCACTGCTCCTTTAAGTC
TCATGTGAACCCCTTGTCTCTCCCCAGCTTGTGGGTGAAAGAAAAGCCCTTTAGTCTT
TTGGGTCTCAAATCACAGTTTATGCAGTTTGGCCCCAGTCAGAGGGACCCAGGAAGGC

53917

GTTAAATCTTCCCAATAGTGCTACTGCTTCTGTCCCTTTCCAGGGAGGAGGAAGGAGGCT
TGGAGAAGGGACTGTCTTTTAGGAGCCCTGCCAGTGTTTCTGTGGAGGGTGGGGCCAT
CGTGAAGACAGACCTATGGTAGGGTAAGCTGGGTGGCTGTTGAAGTCCAACCTTCCCC
CTTCTTCTCTAACCTTGATAACCTTGTCTCTGGGGCCTGTCTGCTAGTGGAGAGGCTT
CTGACTTTTTTTTTTTTTTTTGGCCATACCTTTGGTTTATAAATACAAGAAGAGATTGGGG
[C, T, G]
AAAATCAGGGGAACTGTGAGCTTACAAGTCCCGAGAAGGAAGTCACTGCTCCTTTAAG
TCTCATGTGAACCCCTTGTCTCTCCCCAGCTTGTGGGTGAAAGAAAAGCCCTTTAGTC
TTTTGGGTCTCAAATCACAGTTTATGCAGTTTGGCCCCAGTCAGAGGGACCCAGGAAG
GCAGACTCAGGGTAAATTCTGCCTGTCTTCCACCAGAGAGGGGACTCACCAAGTGTGACT
CATGCCATTCAATAGAATTTTTTAAATCTCACAGTATTTTGTACCCCTGAGTAAAAGAG

54056

GTAGGGGTAAGCTGGGTGGCTGTTGAAGTCCAACCTTCCCCCTTCTTCTCTAACCTTGA
TAACCTTGTCTCTGGGGCCTGTCTGCTAGTGGAGAGGCTTCTGACTTTTTTTTTTTTTTT
TGCCATACCTTTGGTTTATAAATACAAGAAGAGATTGGGGGAAAATCAGGGGAACTGT
CGAGCTTACAAGTCCCGAGAAGGAAGTCACTGCTCCTTTAAGTCTCATGTGAACCCCTTG
TTCTCTCCCCAGCTTGTGGGTGAAAGAAAAGCCCTTTAGTCTTTTGGGTCTCAAATCA
[C, T]
AGTTTATGCAGTTTGGCCCCAGTCAGAGGGACCCAGGAAGGCAGACTCAGGGTAAATTC
TGCTGTCTTCCACCAGAGAGGGGACTCACCAAGTGTGACTCATGCCATTCAATAGAATT
TTTAAAATCTCACAAGTATTTTGTACCCCTGAGTAAAAGAGAGGCTTGTAGCTCTTCATG
AAGGAACAAGAAAGGCCCAACTGAGTGTGGAGCCAGTGAAGTAAATACTGCCCTG
TCTCTGTCTGTCCACTCTAGCGCTTGTAACAACCATGAAGAACTCTCTTGGACTGTTT

54402

ACTCAGGGTAAATTCTGCCTGTCTTCCACCAGAGAGGGGACTCACCAAGTGTGACTCATG
CCATTCAATAGAATTTTTTAAATCTCACAAGTATTTTGTACCCCTGAGTAAAAGAGAGGC
TTGTAGCTCTTCAAGGAACAAGAAAGGCCCAACTGAGTGTGGAGCCAGTGAAG
TAAATACTGCCCTGTCTCTTGTCTGTCCACTCTAGCGCTTGTACAAACCATGAAGAACT
CTCTTTGGACTGTTTGTCTTTTGAAGAATGTTAACACCTTGACTCTGGATTTCTGCCTATG
[G, A]
GAAAAAACCACAATAGTGCCAGGGGTGCTTCCATATGCAGGATTAAGTCTGCAGTCAAAG
TTTCTGTTGGGCAGGTGTGTGAACCTTGATATCATAAATGCTGGCCCAAAGCAAATGGGAG
AATGGATGAATGAACAAATTGAGGAATGAAACAACTGTAACCAGGGGTCTCCTAGTTGT
AGGTCTCTGCTAAACTTCATATTGAGACACAAAGGAAGGGCATCTTATAATATAATGTT
GGGGATGAGCAGTCAGCTTGGAGGTGGGGACCGTAAGGTGGGTTTGTATGTTTGAAG

FIGURE 3ZZZ



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54493 TATTTTGTACCCCTGAGTAAAAGAGAGGCTTGTAGCTCTTCATGAAGGAACAAGAAAGGC
CCGAACTGAGTGTGTTGGAGCCAGTGAAGTAAATACTGCCCTGTCTTGTCTGTCCAC
TCTAGCGCTTGTACAAACCATGAAGAACTCTCTTTGGACTGTTTGTCTTTTGAGAATGTT
AACACCTTGACTCTGGATTTCTGCCTATGGGAAAAAACCACAATAGTGCCAGGGGTGCTT
CCATATGCAGGATTAACCTGTCAGTCAAAGTTTCTGTTGGGCAGGTGTGTGAACCTTGATA
[G, A, T]
CATAAATGCTGGCCCAAAGCAAATGGGAGAATGGATGAATGAACAAATTGAGGAATGAAA
CAAACCTGTAACCAGGGGTCTCCTAGTTGTAGGTTCTCTGCTAAACTTCATATTGAGACAC
AAAGGAAGGGCATCTTATAATATAATGTTGGGGGATGAGCAGTCAGCTTGGAGGTGGGGA
CACGTAAGGTGGGTTTGTATGTTTGAAGAAGTAATGACCAAAAAAAGAGTCAAGAGGTGA
GAAGAATCTGGGAAGTGAGACCTGTTTCTCTGGGACAGGTGTGAGCGGGTCTGGGTGCTG

54749 CTCTGCAGTCAAAGTTTCTGTTGGGCAGGTGTGTGAACCTTGATATCATAAATGCTGGCCC
AAAGCAAATGGGAGAATGGATGAATGAACAAATTGAGGAATGAACAAACTGTAAACAGG
GGTCTCCTAGTTGTAGGTTCTCTGCTAAACTTCATATTGAGACACAAAGGAAGGGCATCT
TATAATATAATGTTGGGGGATGAGCAGTCAGCTTGGAGGTGGGGACGTAAGGTGGGTT
TTGATGTTTGAAGAAGTAATGACCAAAAAAAGAGTCAAGAGGTGAGAAGAATCTGGGAAG
[T, C]
GAGACCTGTTTCTCTGGGACAGGTGTGAGCGGGTCTGGGTGCTGCTGGGTTTGGCTGGGG
CAAAGGTGCTTGTGGGGGCGTGGCAGTGGGTGAGGCCTGTGAGATAGGCAGGCGCCAGG
TCCCTGGAAGGGAGAGCTCAGGGAGCAAGGCATGGAGCCTGCACTTACTCTGAATGTGGT
GGCGCCTTCAGAGCATTGTTAGCAGGGGTCCATGTGATCACACTGACACCTGAGAGAGTG
ACACACCATGTACATGGCTGGTATATGGAGGATGGATTAAAGGGGGACAGGACTGAAGGC

55396 GACAGGAAAGCACAGATGTGAGATGAGGTGGCAGGCAGTTCTAGCTCCCTCTTCCCCCA
GTCTGCCTTGTTTTCCTCTTCTCATGGCTCCATAGGGTCTCAGTCATTTTCATCATAGCTT
GATCTCTTCCATCTGGAAGTGCAGCCTGAAATTTTGAAGACAGCAGGGAGCAATGCTTCA
CCCAAAGGGAGAGCCTCGGGTGGCGTTTGGGACCATGGCTTGCTCTCTTAGTGATACAG
GACTTAGTGTTACTGCCATTCTTACTGGGATCAGCTTGATTGCCTTTAAGGTAGGGCTGT
[-, C]
CATGGAAACAGGGAAAACATGATTTGGTTGTTTGGGTATCTGGAACCAGAGGCAGCACAG
ATACTGCTCTAAGAGCTGCTGGGACAACTGGAGGCCGGTGTGGGTGGAGCACCCGAGGTG
GAATCCTGCGCTCCTCATCTTTCCTGCCCTCTTCTAACACCCCTCCCTCCCCAGCGGCCT
GAAGTCTGCCTATGCCTATGCAGGCTGAGCTGTAACTGGGACTCTTTGGAAGCTCTGAG
CCATCAGTGCAGGTGGCCCCGGAATGATTCCAGACCTAGAGTAGGGGTGGGAGGTGCGCT

55397 ACAGGAAAGCACAGATGTGAGATGAGGTGGCAGGCAGTTCTAGCTCCCTCTTCCCCCAG
TCTGCCTTGTTTTCTCTTCTCATGGCTCCATAGGGTCTCAGTCATTTTCATCATAGCTTG
ATCTCTTCCATCTGGAAGTGCAGCCTGAAATTTTGAAGACAGCAGGGAGCAATGCTTCAC
CCAAAGGGAGAGCCTCGGGTGGCGTTTGGGACCATGGCTTGCTCTCTTAGTGATACAG
ACTTAGTGTTACTGCCATTCTTACTGGGATCAGCTTGATTGCCTTTAAGGTAGGGCTGTC
[-, C]
ATGGAAACAGGGAAAACATGATTTGGTTGTTTGGGTATCTGGAACCAGAGGCAGCACAGA
TACTGCTCTAAGAGCTGCTGGGACAACTGGAGGCCGGTGTGGGTGGAGCACCCGAGGTGG
AATCCTGCGCTCCTCATCTTTCCTGCCCTCTTCTAACACCCCTCCCTCCCCAGCGGCCTG
AAGTCTGCCTATGCCTATGCAGGCTGAGCTGTAACTGGGACTCTTTGGAAGCTCTGAGC
CATCAGTGCAGGTGGCCCCGGAATGATTCCAGACCTAGAGTAGGGGTGGGAGGTGCGCTG

55703 AACAGGAAAACATGATTTGGTTGTTTGGGTATCTGGAACCAGAGGCAGCACAGATACTG
CTCTAAGAGCTGCTGGGACAACTGGAGGCCGGTGTGGGTGGAGCACCCGAGGTGGAATCC
TGCGCTCCTCATCTTTCCTGCCCTCTTCTAACACCCCTCCCTCCCCAGCGGCCTGAAGTC
TGCTATGCCTATGCAGGCTGAGCTGTAACTGGGACTCTTTGGAAGCTCTGAGCCATCA
GTGCAGGTGGCCCCGGAATGATTCCAGACCTAGAGTAGGGGTGGGAGGTGCGCTGCGGG
[A, C]
GGGGGGAGGTGAGAGGAGGCTGTCCTTTCCCTCTTGCCCGGAGTCTGCAGTCACAGTTG
CACTTTGCCTGGGTGAGTAGCAGAGTCACGCTGCTGTGTGACAGTGGCACTGAGGCAGCT
GCATTTGAGGTTTCAAGAGACTCTGAACCCCTTGAATGCCATTTGTTTTCAGGTGACATG
GAGGAATGGAGGCACTCGGGTTAAGTGTCTGAAGATGGATTCAAGGATGCCCTGCTGTG
TAGCTTGTCATAGGTTGCTCAGTGTCCTCTCTGGCCCGTAGTTTCTCATCTATCAAT

FIGURE 3AAAA



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55783 ACTGGAGGCCGGTGTGGGTGGAGCACCCGAGGTGGAATCCTGCGCTCCTCATCTTTCCTG
CCCTCTTCTTAACACCCTCCCTCCCCAGCGGCTGAAGTCTGCCTATGCCTATGCAGGCT
GAGCTGTAACCTGGGACTCTTTGGAAGCTCTGAGCCATCAGTGCAGGTGGCCCCGGAATG
ATTCCAGACCTAGAGTAGGGGTGGGAGGTGGGCTCGGGGCGGGGGAGGTGAGAGGAGG
CTGTCTTTCCCTCTTGCCCGGAGTCTGCAGTCACAGTTGCACTTTGCCTGGGTCACTA
[G, A]
CAGAGTCACGCTGCTGTGTGACAGTGGCACTGAGGCAGCTGCATTTCAAGTTTCCAAGAG
ACTCTGAACCCCTTGAATGCCATTTGTTTCAGGTGACATGGAGGAATGGAGGCACTCGGG
TTAAGTGTCTGAAGATGGATTCAAGGATGCCCCCTGCTTGTAGCTTGTATAGGTTGCTC
AGTGTCCCCTCTCTGGCCCGTAGTTTCTCTCATCTATCAATGGGGGCAGATAATAATCATC
ACCTTACACAGAAGGTTTGGCGAAGATAAAAACAGGTTCACTGGCTGGGTGCAGTGGCTC

55806 CACCCGAGGTGGAATCCTGCGCTCCTCATCTTTCTGCCCCTCTTCTTAACACCCTCCCTC
CCCAGCGGCTGAAGTCTGCCTATGCCTATGCAGGCTGAGCTGTAACCTGGGACTCTTTG
GAAGCTCTGAGCCATCAGTGCAGGTGGCCCCGGAATGATTCCAGACCTAGAGTAGGGGTG
GGAGGTGGGCTGCGGGGCGGGGGAGGTGAGAGGAGGCTGTCTTTCCCTCTTGCCCGGG
AGTCTGCAGTCACAGTTGCACTTTGCCTGGGTCACTAGCAGAGTCACGCTGCTGTGTGAC
[A, C]
GTGGCACTGAGGCAGCTGCATTTCAAGGTTTCCAAGAGACTCTGAACCCCTTGAATGCCAT
TTGTTTCAGGTGACATGGAGGAATGGAGGCACTCGGGTTAAGTGTCTGAAGATGGATTCA
AGGATGCCCCCTGCTTGTAGCTTGTATAGGTTGTCTAGTGTCCCCTCTCTGGCCCGTAG
TTTCTCTCATCTATCAATGGGGGCAGATAATAATCATCACCTTACACAGAAGGTTTGGCGA
AGATAAAAACAGGTTCACTGGCTGGGTGCAGTGGCTCATACTTGTAAATCCAGCACTTTA

57433 GAAGTAGTCAATCTCATAGACTGGAAAAATTTTTTAATGCCTATTTGAAACAAATGTCGT
TCCTATTTTTTGGGATAAAAGGGCCCTTTCCCCCTGGAATTGCTATGTTTCTCTTTTCC
TGTTCTTACACTCTGCAGAACTGACTTTGAAGTCAGATGATTCCTTTTAAATCTGGCTT
CTCGCTTTTGGGCCGCTTAACCTTGACTTAGCCATTGAACCTGTCTGGGTCTCAGTTTCT
TTGTCTGTGAAGTGGGGCTGTGTGGGCATGAGCATGCGCTACAGGCCTCTAACTGGAG
[G, T]
GGGTGTTGGTGATCAGGGCCCTGGCTGCTGCCCTGATCTCCACAGCTGGGCTTGCACTGC
GGGTACGTTGCTCCCGGGCTGCTCCAGCCAGTGTCTGTGCGCAGCAAGGATACACGGC
AGGATTGTTTCTGGGAGACACAGGACTCCTCAGACAGCTAACTTCAGCTCAAGAACTCCT
TGATGGGCTTGCTAACTTCTTAGGCTGGAAGATGCTTACCTCCTTCTCTTCTTTCC
TTCTTTTCCAGGGGTGCACTTACTTAGAGTCTAGTGGCTGTTCTAGCCTCCCCAACTC

57699 GCATGAGCATGCGCCTACAGGCCTCTAACTGGAGGGGTGTTGGTGATCAGGGCCCTGGC
TGCTGCCCTGATCTCCACAGCTGGGCTTGCACTGCGGTACGTTGCTCCCGGGCTGCTCC
CAGCCAGTGTCTGTGCGCAGCAAGGATACACGGCAGGATTGTTTCTGGGAGACACAGGA
CTCCTCAGACAGCTAACTTCAGCTCAAGAACTCCTTGATGGGCTTGCTAACTTCTTAG
GCTGGAAGATGCTTACCTCCTCCTTCTTCTTTCTCTTTTCCAGGGGTGAGACTTAC
[T, A]
TAGAGTCTAGTGGCTGTTCTAGCCTCCCCAACTCCCTATCATTTTCTCTCACACATGCGT
TCCCCCTAATAAAATCCATGCACATTAAATCCCTTCTTGGCATCTGCTTCTGGGGTCTCT
ACCTGGACTCATGCAGTGTGATAATTCTTGTAGTGAGGACCGAATGTAGTGATGTAAGC
AGAGTGTGTTGTGAGAGTGACAGCATGAGTAAGTGGCCAGTAGGCCATCAGGGCTCCTGTC
ACCTTACCACCATCAGCACCACCATCCTCATCACCATCTGGCCAAGTTTGCTTCTTTGT

60173 TTAATGGACTIONCAGTTCATATGGCTAGGGAGGCCTCACAATCATGGTGGAGGGTAAAT
GAGGAGCAAAGTCACATCTTACATGGCAGCAGGCAAGAGAGCATGTGCAAGGGAACCCAC
CTTTATAAAACCATCAGATCTTGTGAGACTTATCACTATCACGAGAACAGCACGGGGAA
AAACCTGCCCCATGCTTCAATTACCTCCCACGGGGTCACTCCCCCAAGATGTAAGGATT
ATGGGAATAACAATTAAGGTGAGATTGGGTGGGGACACAGCCAAACCATATCAGGAAAT
[C, G, A, T]
TGAACTAATGAGGGGCAGATTCAATTCCTGGGGCTTCGCTAGCAAATTGCCACACATGTA
GTGGCTTAAAGCAGCACTAATTTATTATTGTATGGTTCTGGAAGTCAGAAGTTCAAATC
AGCCTCACTTGGCCAAAATCAAAGAGTAAGCAGTACAGGTTCTTCCGGAGGCTCTAGGG
GAGGATCCTTCCCTTGCCCTTTTCCAGCTTCTAGAGGGACCAATTCCTGGGCTCATGGCT
GCATCACTCCAACCTGTGTATCTGTCTCATATCCCTTCTCTCTGGCCCTCCTGCTTC

FIGURE 3BBBB



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62216 CACATTGTTTTCAACAAGGAAGCTAAGGGAGGAGGTGAATTATAAAATGGCAGAGAGATAGC
TTTCAATTTGGACCCCTCGTAGAAAAATGTAAGTATTTCAAACCTCAGTTTATACTTTTTTT
TTTTTTAAACTGGGACCCCTGGTGCTTATTTTTTAGAACTCAAATGGGTACCTAGCAACT
GATCAAATTCCTTAAGTGCAGGCTTGGTGAACCAGCGTTTCATCCTCACATTTGAAAGCT
GGCTCAAAGAAGACATCTGTGCTTTGTTTCTGACACGTTTGTATTATTATATAAACAAA
[C, A]
TCTCTTCTTTTGTCCCCACCCTGACTCCTCAGTGGCCGTTCCCGCAGCAGCACCCGT
GTGCCAGCCCAAGAGCGCCACTAACGGGCAACCCCGGCTCCGGCTCCGACTCCAACCTCC
GCGCTGTCCATTTCTCCGAGCCACAGTGGTAGCCAGGATGGAAGGCACCTCCCAAGG
GGGCTGCAGACCGTCATGAAGTGAAGACGGTGGTGGCATCTTTGTGGTTGTGGTGGT
CTACCTTGTCACTGGCGGTCTTGTCTTCCGGGCATTGGAGCAGCCCTTTGAGAGCAGCCA

62830 GCCTTGGAGAAGGCGGAATTCCTGCGGGATCATGTCTGTGTGAGCCCCAGGAGCTGGAG
ACGTTGATCCAGGTGAGCAGGGAGTGAGTCCATCTTAGGCCAGCTGGTGGGGTGGATGGC
AGTGTGGTTTTATCTTTCTGGGTCTCTAGTCTTGCCCTCAGTTGAGAGGCTCTTGGTGG
TCAGGGAAGTTCTCTCCAGGGAGGTGACATGTGAGCTGAGACCTCCAAGAAGCGATAGTG
AGGCATGTGACAGTGTGGGGGAAGGAGGGTCCATGTTCTGCATCTGGTTTTGGATGAGTG
[G, C]
TCAGAGGCGGCAGCAGGCCAATGGACTTTGGATTTTCAAGTTCAAGTCCACCTATGTGTG
CTGATTAACCTCCTTGATTCTGAACCTCTGTGGAATGCTGGGATAGAACCAGAAGGAAA
GAATTTTAAATATGAGATTTAGAATAAGCAGGGATATATTAACCTGTCCAAGGTCCATG
AGGATGAGGTAGAGAAGAGGCCACCAGGTATGTGGGTGAAGAGGCTGTCACTGGCCTGAG
ACAGCTGTTATAGTGGATTTATGGGGATGAAATAATATGGATCACAGTAGTAGTAATCAT

63395 GGATGAAATAATATGGATCACAGTAGTAGTAATCATCAGGTTTGCTGTTTTTGAATACTT
ACTGTGTATCAGGCACTGTACTAAGGCCCTTACATACCCTGGATATTAAGGAAAAAGAT
TCTTAGGAAAATGGAAGCAGAGAACTTGAAGTGCAGCCTAAAGAAGCAAGGCAACACTTC
TGGGCGACAGATGTGACTTGGCAGGGGTGGACTGTGGCGGTAAGGAGCTATAGGAAAGC
CAGAGAGTCATCTGTGGGGCTGCGGTGCGAGGGACTGGATCAGGAGGGTTGTGAAGTCTG
[G, A]
GAAGCCAGAGAGAAAAGCAGTTCCCACGAGGAAGAAAGGGAAATGGTGGAGAGCCCTGTT
GGAGGGCTTCACCTTGGACGTGAAGGAGGAAGGCTGCCTCTGAGGCTGAAGTTCCACTTT
CTATCCCAGACACCCCTCCTGAACCTACAAAGAGTGGGTTTTGGTGGAAAGGCGGTGACATTT
ATGGAGGTGAGGGAGAGTCTCATCTTTCTGGGGGCTCTAAAGTTTGAAGGTGGAGGGAT
GGAAAAGACAGCTTTTACAATTCCTTCTGGCTCTGGAAGATGCACATTAAATTCTAATGG

64019 GGATTTACCAGTCTGCGCTGTTTTCTTATTTATTTATTTCTTACCATACCAATAGAGTAG
GGGAATTCTGATGCTGCTTATGATCTGGCACCTTCATAGCAATCATATCTTGTGCTAGTTA
GTTTTAATAATGACTTGACTCTTAAATAAATAGAAATACAAATCTTCCCTTCTCTGGGAG
TAAATATGATTTTCATAGCTATGCCCTATAATTCTTCTCAAAAAAATAAAATGTTAAAAAT
CCAAGGGCAGCATTTTCATATAAGTGTTCATAGGAAGTCAGTTCTCCAAATGGCTTTGTCT
[T, -]
TTTTTTTTTTTTCTTTTTCTTTTTTGAGACAGGGTCTCATTCTGTCACTTAGGCTGGAGTG
CAGTGGTGTGATCATGGCTCATTGCAGGTTCAACTTCCTGATCGAGGTATCAGCTGATCC
TTCTGCCTCAGTCTCCTGAGTAGCTGGGACTACAGGCATGTGCCACCATGCCTGGCTACT
TTTTGCATTTTTTTGTAGAGACAGGTTTTACCATGTTGCCAGGCTGGTCTTGAATTCC
TAGGCTCAAGCAATCAACCCGCCTTGCCCTCCTAAAGTGCTGGGATTACAGGTGTGAGTC

64030 TCTGCGCTGTTTTCTTATTTATTTATTTCTTACCATACCAATAGAGTAGGGGAATTCCTGA
TGCTGCTTATGATCTGGCACCTTCATAGCAATCATATCTTGTGCTAGTTAGTTTTAATAAT
GACTTGACTCTTAAATAAATAGAAATACAAATTCCTCCCTTCTGGGAGTAAATATGATT
TCATAGCTATGCCCTATAATTCTTCTCAAAAAAATAAAATGTTAAAAATCCAAGGGCAGC
ATTTTCATATAAGTGTTCATAGGAAGTCAGTTCTCCAAATGGCTTTGTCTTTTTTTTTTT
[T, -]
CTTTTTCTTTTTTGAGACAGGGTCTCATTCTGTCACTTAGGCTGGAGTGCAGTGGTGTGA
TCATGGCTCATTGCAGGTTCAACTTCCTGATCGAGGTATCAGCTGATCCTTCTGCCTCAG
TCTCCTGAGTAGCTGGGACTACAGGCATGTGCCACCATGCCTGGCTACTTTTTGCATTTT
TTTGTAGAGACAGGTTTTACCATGTTGCCAGGCTGGTCTTGAATTCTTAGGCTCAAGC
AATCAACCCGCCTTGCCCTCCTAAAGTGCTGGGATTACAGGTGTGAGTCACACGCCCAT

FIGURE 3CCCC



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64104 TGGCACCTTCATAGCAATCATATTCTTGTGAGTTAGTTTTAATAATGACTTGACTCTTAA
ATAAATAGAAATACAAATTCTTCCCTTCCTGGGAGTAAATATGATTTTCATAGCTATGCC
TATAATTCTTCTCAAAAAAATAAAATGTTAAAAATCCAAGGGCAGCATTTCATATAAGTG
TTTCATAGGAAGTCAGTTCTCCAAATGGCTTTGTCTTTTTTTTTTTCTTTTTCTTTTT
GAGACAGGGTCTCATTCTGTCACTTAGGCTGGAGTGCAGTGGTGTGATCATGGCTCATTG
[C, A, G, T]
AGGTTCAACTTCCTGATCGAGGTATCAGCTGATCCTTCTGCCTCAGTCTCCTGAGTAGCT
GGGACTACAGGCATGTGCCACCATGCCTGGCTACTTTTTGCATTTTTTTGTAGAGACAGG
TTTTACCATGTTGCCAGGCTGGTCTTGAATTCCTAGGCTCAAGCAATCAACCCGCCTT
GGCCTCCTAAAGTGCTGGGATTACAGGTGTGAGTCACCACGCCCATCCCTTTCTCTTT
CATGGGAAATGCTACCACATTTGTGGTGTGAGATTTTTGTACTAATCAGTGCCAGATT

64166 AAATAGAAATACAAATTCTTCCCTTCCTGGGAGTAAATATGATTTTCATAGCTATGCCCTA
TAATTCCTTCTCAAAAAAATAAAATGTTAAAAATCCAAGGGCAGCATTTCATATAAGTGTT
TCATAGGAAGTCAGTTCTCCAAATGGCTTTGTCTTTTTTTTTTTCTTTTTCTTTTTTGA
GACAGGGTCTCATTCTGTCACTTAGGCTGGAGTGCAGTGGTGTGATCATGGCTCATTGCA
GGTTCAACTTCCTGATCGAGGTATCAGCTGATCCTTCTGCCTCAGTCTCCTGAGTAGCTG
[G, T]
GACTACAGGCATGTGCCACCATGCCTGGCTACTTTTTGCATTTTTTTGTAGAGACAGGTT
TTCACCATGTTGCCAGGCTGGTCTTGAATTCCTAGGCTCAAGCAATCAACCCGCCTTGG
CTCCTAAAGTGCTGGGATTACAGGTGTGAGTCACCACGCCCATCCCTTTCTCTTTCA
TGGGAAATGCTACCACATTTGTGGTGTGAGATTTTTGTACTAATCAGTGCCAGATTAA
AAGCTAGCATGCTATAGAGAATGGAATAACAATTCTGGAGTAGTTTTAAGTAGGAGTA

64408 TTCAACTTCCTGATCGAGGTATCAGCTGATCCTTCTGCCTCAGTCTCCTGAGTAGCTGGG
ACTACAGGCATGTGCCACCATGCCTGGCTACTTTTTGCATTTTTTTGTAGAGACAGGTTT
TCACCATGTTGCCAGGCTGGTCTTGAATTCCTAGGCTCAAGCAATCAACCCGCCTTGGC
CTCCTAAAGTGCTGGGATTACAGGTGTGAGTCACCACGCCCATCCCTTTCTCTTTCA
GGGAAATGCTACCACATTTGTGGTGTGAGATTTTTGTACTAATCAGTGCCAGATTAA
[A, G]
GCCTAGCATGCTATAGAGAATGGAATAACAATTCTGGAGTAGTTTTAAGTAGGAGTATA
ATTACATTTATACACATTGTTGTGATATGAGGTAGGATCCTTTTTAATTAGTTGTAAGAC
ACGTCATAATAACCTGATAGGCGTTCTGAAGTGAATCTAGTATTGTGTTGAATTTCTCT
TCATTAGGCAGTAAGATCTTGAAGAAAAGGAATGCACTGTGTTACCTTTCTCCTCCCATG
TGACCTATGCTTTGCTTTGCCTCTAATTATTGCCATTAGATAAATGTTTTTAGAGCAAG

64786 TGTTGTGATATGAGGTAGGATCCTTTTTTAATTAGTTGTAAGACACGTCATAATAACCTGA
TAGGCGTTCTGAAGTGAATCTAGTATGTGTTTGAATTTTCTTCATTAGGCAGTAAGAT
CTTGAAGAAAAGGAATGCACTGTGTTACCTTTTCTCCCATGTGACCTATGCTTTGCTT
TGCTCTAATTATTGCCATTAGATAAATGTTTTTAGAGCAAGATATCAAAGCAAATTGT
AGAACACTGGTGTATGCACAAGCTATCTGAGCTTATCCATGCATTTGTTGATTAATTCGG
[C, T]
ATTTCCGTATTGCCCATTTCTTTAACCCCTCATCTTTATGAGAGAGCTCAGAGACCTGAATG
AAGGACAGGGTCAGAGAGCGTGGAGGTCCTTATTCTGATGCTGCCATTAAGACTGGTGTC
CTGTTTTGACCTCAAAGATTTCTCTGTGAAATGAGATATGTGTGTGTATGTGTGCGTTG
TGTGAATGTGTTTGACATACACAGTGTGTGCATTTAAGATAATTTTATAACAATTTAA
AAAGCTGCTCTTTATTAGGCATCTGTTATGAGCTGGGCATCATATACCCATTATCTCATT

65120 TTATGAGAGAGCTCAGAGACCTGAATGAAGGACAGGGTCAGAGAGCGTGGAGGTCCTTAT
TCTGATGCTGCCATTAAAGACTGGTGTCTGTTTGGACCTCAAAGATTTCTCTGTGAAATG
AGATATGTGTGTGTATGTGTGCGTTTGTGTGAATGTGTTGCACATACACACGTGTGTGC
ATTTAAGATAATTTTATAACAATTTAAAAAGCTGCTCTTTATTAGGCATCTGTTATGAGC
TGGGCATCATATACCCATTATCTCATTAAATCTTATCAACAACACTCTAAGTTCATATCA
[A, G, C]
GATTCCCATTTTACAGGGGAGGAAACATCAGTTTCTTAAAGAGGTGAGTAACTTTCCAA
CCACCAAAGTGGTAGAGCTGGTAGTCAGCGCAAGGTTGGACTGACTGTACACTCTCTCAT
CCAAATAGTCTACAGGCCCTTTAAGTAGATCTTGGTTTATAATAAGCTCCAGTCTCTTTT
AAACTGTGCTTTTATGTTGAATGCTGTATTAGTCCATTTCTACTATAAAGAACTATCTGA
GACTAAGCAATTTATAAAGAAAAGAGGTTTAAATTGATTACAGTTCCGCAGGCTGTGCAG

FIGURE 3DDDD



Docket No.: CL000858
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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

65703

GTTCCGCAGGCTGTGCAGGAAGCATGGCTTGGGAGGCTTCAGGAACTTACAATCATGGC
AGAAGACGAAGGGGAGGCAGGCATGTCTATATGGCTGGAGCAGGAGGAAGAGAGAGCAA
AGGGAGGGATGCTACACACTTTTAAACAACCATATCTTGGCCTGGCGCGGTGGCTTACAC
CTGTAATCCCAGCACTTTGGGAGGCCAAGGTGGGTGGATGACCTGAGATCAGGAGTTCGA
GACCAACCTGGCCAACATGGTGAACCCCATCTCTACCTAAATACAAAATTAGCCAGG
[C, T]
GTGGTGGTGTGCACCTGTGGTCCCAGCTACTAGGGAGGCTGAGGCAGAAGAATTGCTTGA
ACCTGGGAGGCAGAGGTTGCAGTGAGCCGAGATCATGCCACTGCACTCCAGCCTAGGCAT
CAGAGCATGACTCTCTCAAAACAAAAACAAAAACAAAAAGCCAAACAAACAGATTTCATG
AGAACTCACTCACTATCACAAGAACAGCAAGAGGGAAATCTGCCCCACCATACCCTTC
TCCTACACTGGGGATTACAATTCAACATGAGATTGGGGCAGGGACATAAATCCAAACCAT

66930

ATGCCTCTGAGCAGCACTGTATGTAGCGATCACAAGAAACACAGTATTTAAAAATAGTCT
GTTTTACATCTGGAAGGGTTTTTCAGTGTGCTGTGTTTTAAGTTGGAAAGATAGTACTAT
TGTATCTCACCAAGTCTGAAAGGAGTGACTGGAGAGTAGAAAGTAGATGGAAAGTATTT
ATTTTCATCATGTCTCTTGGCTGGATTGAGTGAACCCCTCATAAAGCCAAGCTGGAATGTG
TGCTTCATATTATTAATAACCAAAATAGAGTATCCAGAGAAGCATGATACCCTCAAATG
[C, G]
CTGGATAGCCTAGAAGAGCCTTAGCTCTTACAGCCATCGTGGGGAGGGATTTTCCAACAA
GTAAGACCATTTCATGGGGTACTGTGGGACTCCAGAGGAGAGTAATGGGCCACTATCCCT
AAAGGTGAAGAAAGATGGGTTGCTGTTATGAAGGGGACATTCTCATCCATTTCATTGATC
ATTTCATTTCATCTATCCATCCATCCACTTGTCTCAGAATTGCTGCTGAACTCCTGCATGT
ATCAGGTAACATGCCAGGTGTGGGGAGAGAAAGAAGACACGGCCGGGTTTCGGTGGC

66951

TGTAGCGATCACAAGAAACACAGTATTTAAAAATAGTCTGTTTTACATCTGGAAGGGTT
TTCACTGTGCTGTGTTTTAAGTTGGAAAGATAGTACTATTGTATCTCACCAAGTCTGAA
AGGAGTGACTGGAGAGTAGAAAGTAGATGGAAAGTATTTATTTTCATCATGTCTCTTGGCT
GGATTGAGTGAACCCCTCATAAAGCCAAGCTGGAATGTGTGCTTCATATTATTAATAACC
AAAATAGAGTATCCAGAGAAGCATGATACCCTCAAATGCCTGGATAGCCTAGAAGAGCC
[T, G]
TAGCTCTTACAGCCATCGTGGGGAGGGATTTTCCAACAAGTAAGACCATTTCATGGGGTA
CTGTGGGACTCCAGAGGAGAGTAATGGGCCACTATCCCTAAAGGTGAAGAAAGATGGGTT
GCTGTTATGAAGGGGACATTCTCATCCATTTCATTAGTCATTTCATCTATCCATCCA
TCCACTTGTCTCAGAATTGCTGCTGAACTCCTGCATGTATCAGGTAACATGCCAGGTGT
TGGGGAGAGAAAGAAGAAGACACGGCCGGGTTTCGGTGGCTCACGCCTGTAATCCCAACCAC

68094

GAGACATTTTTGGTTGTTACAGCTGGGGAGGTGCTATAGACATCTAGTGGGTAGAGGCCA
GGGTTGCTGCTAGACATCCTACAATGCACAGCATAGACCCCCCTCCACAAAGAATTAT
CCAGTTCAACATGCTCATAGGTTGAGAAGCACTGGAGGAAGAGGCATGTAAGCCAATAAT
TACAATCTTTTGAATAGAGCTATCTGAAAGACGTCCAAAAAATGGAGCCCTAGTGAGGC
AAATAGAGCTCAGAGAATATTTTGTGGTTATTTATCTCCTTCAGTCCCCACAGCTGTTCT
[G, A]
TGAGGATAATCTTTGGTGCCACATACAGACGAGGAAATGAGGCAGCAGGAGCTGAAATG
ATGGCTTAAGTTACCTGGTTAGAAATGGAGGATCCAGGGTTTACTGCCAGGCAGTCTGA
CCACATATCCCAGGCTCTGAACCACCATGCACTGGAACAGAAACACGATATCTGGGAGGG
ATTTCATTGGGTAGGCCATGGTTGGAGGGTATCCCAATGGCTGGCATGTGGCCCATGGGAA
AATGCTAACAAAGTTTGTGGTGACAAGAATGTTATACTAATCAGTTCCAGATTTGAGGCAT

68124

GTGCTATAGACATCTAGTGGGTAGAGGCCAGGGTTGCTGCTAGACATCCTACAATGCACA
GCATAGACCCCCCTCCACAAAGAATTATCCAGTTCAACATGCTCATAGGTTGAGAAGC
ACTGGAGGAAGAGGCATGTAAGCCAATAATTACAATCTTTTGAATAGAGCTATCTGAAA
GACGTCCAAAAAATGGAGCCCTAGTGAGGCAAAATAGAGCTCAGAGAATATTTTGTGGTTA
TTTATCTCCTTCAGTCCCCACAGCTGTTCTGTGAGGATAATCTTTGGTGCCACATACAG
[A, G]
CGAGGAAATGAGGCAGCAGGAGCTGAAATGATGGCTTAAGTTTCACCTGGTTAGAAATGGA
GGATCCAGGGTTTACTGCCAGGCAGTCTGACCACATATCCCAGGCTCTGAACCACCATGC
ACTGGAACAGAAACACGATATCTGGGAGGGATTTCATTGGGTAGGCCATGGTTGGAGGGTA
TCCCAATGGCTGGCATGTGGCCCATGGGAAAATGCTAACAAAGTTTGTGGTGACAAGAATG
TTATACTAATCAGTTCCAGATTTGAGGCATTGAAAGTGATCAGAATGGCTTGAACCTGAGA

FIGURE 3EEEE



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

68787 CTTAGAGGACCTTTATGTTGTGGAATGTCGAGTCACTGAAAGCTTTAAGCGAGGCTTGGAGATGGAAATTGGCTGCTGAAAAAACCTTTTAGCAATGAGGAAGTTGGGTTGGAGGAAGGAGAAACGGGAAGAAGGAAGACCAGTTAGAATGTTGCAACATCACAGGTGAGGGATGCTGAGAGATAGAGAAAAGGCTATATTTAAGAAAGTTGACAGAGAAAACCTGAAAATTACTCAAACTGACTCAGCAAAGATTTCTGCTATGTGCTGCATATCCCTGCATGGCCTGTAGCCCCCA[A, G]
GACTCGGGGGTTAATCTCCCCACGTTAAATCCTATACCACTTAATGAGCTGAGTGAATTGGCAAATATCATGTTGCCCCGGCCTCACTGCTCTTCTGTGAAATGGAGATTGCGATCACGGTGTCTACCTGTTAGACACTATGGTGGTCTGAGGATTAAACAAAAGAAGCTCAGTAACTTTGAGCTCTTGTTATTGCTGCTGCTTATTTGTTAGGGAAGGAAGAAAAAAGAAACCAGAAACTCCTAACTGATGCGCATCGTGGAGTTCTGCTGAGGGAAGAGAAGAAGGTGTCTGA

69668 CACTGATCTCTCTCCCCGCTGCTTCTCTGGTTTGAGGCACAGTTTCAGAGAACCTGAGGGACCCGGTGGGCTCAGGCGGCCTCAAAGCAGCAGGTACCTGACCAGTGAGTGACCAGATTCCAAGGTGTGACCGAGTGAAAGGGCTTATATCCCAATGCCTGACTGCAGTTAAACCCTAATGAGGTATGTGGATCTTCTAGAGGAAGGGCCAGGCCCTTTAATAAGGACCCTTCTGAACAAAGAGACAAGATGCTAATCCGAATTCCACTAGGACCAAGTTTGATGTCCTAGGGC[C, A]
AGCCGCTTAACCCGAGCTGGGGCTCAGCAGTTAAGCACATAGAGGACACAAAAGATGCATCCGTCTCTAGAATCTTACCCCTGAGATGTGAGGGAGTGTGCAGACGATTGTAAATGGGTAACCTCTCTGAGAGCTGGTGTAATAATAAAATATAGCTACCCTTACTGATTGTTTACTTTCTCTAGACTCTGTTCTAAGTGCTTGAATCCTCTAGCTCATTAACTCTTGCAAGAAGCCTACAAAGTAGGTACTTTTTTTTATTCTTTTTTTTAAACAGGGTCTTGCTCTCTTACCC

69701 GAGGCACAGTTTCAGAGAACCTGAGGGACCCGGTGGGCTCAGGCGGCCTCAAAGCAGCAGGTACCTGACCAGTGAGGTGACCACAGATTCCAAGGTGTGACCGAGTGAAAGGGCTTATATCCCAATGCCTGACTGCAGTTAAACCCTAATGAGGTATGTGGATCTTCTAGAGGAAGGGCCAGGCCCTTTAATAAGGACCCTTCTGAACAAAGAGACAAGATGCTAATCCGAATCCCACTAGGACCAAGTTTGATGTCCTAGGGCCAGCCGCTTAACCCGAGCTGGGGCTCAGCAGTT[A, C]
AGCACATAGAGGACACAAAAGATGCATCCGTCTCTAGAATCTTACCCCTGAGATGTGAGGAGTGTGCAGACGATTGTAAATGGGTAACTTCCTGCAGAGCTGGTGTAATAATAAAATATAGCTACCCTTACTGATTGTTTACTTTCTCTAGACTCTGTTCTAAGTGCTTGAATCCTCTAGCTCATTAACTCTTGCAAGAAGCCTACAAAGTAGGTACTTTTTTTTATTCTTTTTTTTAAACAGGGTCTTGCTCTCTTACCCACACTGGAGTGCAAGTGGTGCAATCATGGTTCAC

69773 GTGGAGTGACCACAGATTCCAAGGTGTGACCGAGTGAAAGGGCTTATATCCCAATGCCTGACTGCAGTTAAACCCTAATGAGGTATGTGGATCTTCTAGAGGAAGGGCCAGGCCCTTTAATAAGGACCCTTCTGAACAAAGAGACAAGATGCTAATCCGAATCCCACTAGGACCAAGTTGATGTCCTAGGGCCAGCCGCTTAACCCGAGCTGGGGCTCAGCAGTTAAGCACATAGAGGACACAAAAGATGCATCCGTCTCTAGAATCTTACCCCTGAGATGTGAGGGAGTGTGCAGA[C, T]
GATTGTAAATGGGTAACCTTCTGCAGAGCTGGTGTAATAATAAAATATAGCTACCCTTACTGATTGTTTACTTTCTCTAGACTCTGTTCTAAGTGCTTGAATCCTCTAGCTCATTAACTCTTGCAAGAAGCCTACAAAGTAGGTACTTTTTTTTATTCTTTTTTTTAAACAGGGTCTTGCTCTCTTACCCACACTGGAGTGCAAGTGGTGCAATCATGGTTCAGTGTAGCCTGGAACTCTCTAGGCTCAAGCAATCCTCTGCCTCAGCCTCCTCAGAACGTTTCTGGGGTAGGTT

70257 GCTCTCTTACCCACACTGGAGTGCAATCATGGTTCAGTGTAGCCTGGAACCTCTAGGCTCAAGCAATCCTCCTGCCTCAGCCTCCTCAGAACGTTTCTGGGGTAGGTTGGTCCATCCCCTCAGAGTGAGCAGGTATCTCACTCCCTGGAAGGCTGGCTTCTCCCCTGCCCTCTCTCGGTGCTTGCCCTCCAGCAAGTTACTGAAGTCCCTCAGAGGCCTCTCCACCCTGAAATGGACACTGTCTGTCTGTGGGACTACAGGTGGATACCACCAGACCAGCTAATTTTTAA[-, T]
TTTTTTTTTTTTTTTGGTAGAGACAGGGTCTCACTGTGTTGCTCGTGTGGTCTGAAACTCCTGGCCTCAAGCAATCCTCCCACCTCAGCCTCCCAAAGTGCTGATATTACAGGTTTGAGGCACATGCCCAGTCTGAAGTAGGTTCAATCATCATCTCATTTTATGGATGAGGAAATAAATCCCAAGAAGTTAAATAACTTGTCGAAGTCCAGACAGCCAATAAGTGATTAACTTGGAATTGAGCCCTGGGAAGCCAGACTCCAGAGCCCACACAACCTGAACCTTGTGCCATACTGC

FIGURE 3FFFF



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

70261 TCTTACCCACACTGGAGTGCAGTGGTGCAATCATGGTTCAGTGTAGCCTGGAACCTCCTAG
GCTCAAGCAATCCTCCTGCCTCAGCCTCCTCAGAACGTTTCTGGGGGTAGGTTGGTCCAA
TCCCCTCAGAGTGAGCAGGTTATCTCACTCCCTGGAAGGCTGGCTTCTCCCCTGCCTCTC
TTCGGTGCTTGCTCCAGCAAGTTACTGAAGTCTCAGAGGCCTCTCCACCGTGAAATGG
ACACTGTCTGTCTGTGGGACTACAGGTGGATACCACCAGACCCAGCTAATTTTTTAATTTT
[-, T]
TTTTTTTTTTTGGTAGAGACAGGGTCTCACTGTGTGCTCGTGCTGGTCTGAAACTCCTG
GCCTCAAGCAATCCTCCCACCTCAGCCTCCCAAAGTGCTGATATTACAGGTTTGAGGCAC
CATGCCCAGTCTGAAGTAGGTTCAATCATCATCTCATTTTATGGATGAGGAAATAAATCC
CAAGAAGTTAAATAACTTGTCCAAGTCCAGACAGCCAATAAGTGATTAAACTTGGATTG
AGCCCTGGGAAGCCAGACTCCAGAGCCCACACAACCTGAACCCTTGTGCCATACTGCTTAC

70268 CACACTGGAGTGCAGTGGTGCAATCATGGTTCAGTGTAGCCTGGAACCTCCTAGGCTCAAG
CAATCCTCCTGCCTCAGCCTCCTCAGAACGTTTCTGGGGGTAGGTTGGTCCAAATCCCCTC
AGAGTGAGCAGGTTATCTCACTCCCTGGAAGGCTGGCTTCTCCCCTGCCTCTCTTCGGTG
CTTGCTCCAGCAAGTTACTGAAGTCTCAGAGGCCTCTCCACCGTGAAATGGACACTGT
CTGTCTGTGGGACTACAGGTGGATACCACCAGACCCAGCTAATTTTTTAATTTTTTTTTTT
[-, T]
TTTTGGTAGAGACAGGGTCTCACTGTGTGCTCGTGCTGGTCTGAAACTCCTGGCCTCAA
GCAATCCTCCCACCTCAGCCTCCCAAAGTGCTGATATTACAGGTTTGAGGCACCATGCCC
AGTCTGAAGTAGGTTCAATCATCATCTCATTTTATGGATGAGGAAATAAATCCCAAGAAG
TTAAATAACTTGTCCAAGTCCAGACAGCCAATAAGTGATTAAACTTGGATTGAGCCCTG
GGAAGCCAGACTCCAGAGCCCACACAACCTGAACCCTTGTGCCATACTGCTTACTTGCATC

70941 AGAAGGAAACATGATTCAAGAACTGGGCTGTCTGGCATGGTGCTATAGCACTCCACGTG
GGGAATATTGTGTTTTCAAAGAAAGGGTGTGTTAGAAGGGGAATGATCATGGACGTTATA
TCAGATAGACTTGGTCCCTCAACACCACTAAACCTAAGGCCCTCCTCATATTAAAGGGA
TCACAGTCTCATTAGGATGATTGTGGGGAGTGAGTGAACCTAGCAGAGTGCCCTGGCATG
TCACTGGCATCAGGAAATGCTATTTCTTCTCCACCCGCTTTCTTCTCTCAAGCGAAC
[G, A, T]
GAGTAGACAAAGATAATTATACCTGGAGTACTTGCAATTTCTTTGGCAGTAGAATAAAGTA
AATTAAATGTATTTTTGAAGTTGAGGTTTCCATGAACCTTGATTGGCGGTCACTGTGTCC
CAAGAAAGCCTTTATCTTTGACGTCCTCACATGCCGAATTGCTTATCTCCCTGTTCCCA
GTGCAATTGTCTTAGAAGCTTCTATACTGACTAGTCTTGAGAAAGCCATAAAACATTCC
TCTTTGTGATCCTCAAAGAATAAAATCGTGAGGAGCCTTCGCTGACTGACGGGGAAGTG

71359 TCCCAAGAAAGCCTTTATCTTTGACGTCCTCACATGCCGCAATTGCTTATCTCCCTGTT
CCAGTGCAATTGTCTTAGAAGCTTCTATACTGACTAGTCTTGAGAGAAAGCCATAAAACAT
TCCTCTTTTGTGATCCTCAAAGAATAAAATCGTGAGGAGCCTTCGCTGACTGACGGGGAA
GTGTAGAATGAATGCTTCGGTTTGAGGGATGATCATTGGCAGCAGTCTTTTTTCAGGTT
ATGAATTCTGATGTTTCCAGATGTTTGAAGATTTGAGTGTCTTCAGGGGAGCTCGAGT
[G, T]
GTCCCATGGCTGCCATTTCTTCTGGTCTAGCCTCGCTGAAGGGAATAGCATTTACGGG
AGTGGGTTTAGGTTGGATGAGGCACCCATCGGGAAGGACATGGGATTTTTTCATTCTAAG
TGCTTGCCATAAAGCAAACGACAGGGGTCTATTCCTCTCTCTGAGAAATGTTCTGG
GGCAGGTTGGTCTAATCCCCTCAGAGTGAGCAGGTTATCTCACTCCCTGGTAGGCTGCC
TTCTTCCTTGGCTCACTTCACTCCTTGCTCCAGCAAGAGGGTCTCTCAATGCAAAAT

72550 TGAGTATTATTTGGCAAGATTTATTATTTTTTTCATTAAAAAATAAAAATGACCTATAAT
AATTGTATGTATTTATGAGGTACCTCGTGATGTTCCATACCTACAATGTATGATGATCA
GATCCGGGAAATTAGCATATTCATCATCTCAAACATTTATCATTCTTTGTGTTGGGAAC
GTTCAATATCCTCCTTTTAGCTATTTGAAACTATATACTAGATTATTGTTAACTGTAGTC
CATCCTGCAGTGGTATAGAACACTAGAATTTATTCCTGTTATCTTGCTGTAATTATGTCC
[C, T]
GTTTAAACAATCCTTCCCTATCCTCTGCTCCCCTGACTCTTTCAGTCAGCATTATTTAT
TAGGCACTGATTCTGTGCTGGCTGGGTGCTAGAGAGTTTACATATATTACTTAGCTTCAT
TTGCCTCTCTCCATTGCACCAAGAGGCGGCCACTGTGCTGCCCCATTTTACAGAGGGTA
AAGTTCTTGATCTAGCTAGTGACCAAAGCAGGACTTGAGTCTAGCTAGATCTCTCTGAC
TCCAGAGGCCACGCTCTCTTAATCGTACTCTCCTTGGCTTGACACGGTGGGCTTAGAGAG

FIGURE 3GGGG



Docket No.: CL000858
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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

75313 AGCCTCCTGAGAAGCTGGGACTACAGGGGTGTGCCACCACACCCAGCTAAGACAAAACT
CACCTTGTGTCTTCTTTATGCATGAGCAGATTCCCTTGGTATCTATAGCCGTCGAAGCT
TTACGTATTTCCCTATTTAGGGACATAAGAATTTTATAGGAAAGCAGCGTGTGGAAAGCA
CGGCACCTGAGATGTTTCATGGAATCCTTGTGTGACTTCAGAGTGCAGATCTAGAGCAG
CCCTCTGTTTGTCTGCCCTGGGCCATCCCCTATTTCAAGCAGTCTTTAGTCCAGGAAGTT
[T, A]
AGGTAGCAGCTCAGGCAGCAGGTGAGCTCTGGAGAGTGCAGGTTCCGGTTCTTTGAGCCC
AGGGGCACAACCTCTGAGTTGAAGTGACTCCTCCTGGCTGTTGCTTTGAATTTAGAAGAGC
TGCCCTTTACCAGCAAGGCAGTCACGCAAAAGATGCTTCAATGTGTGCAAGATCAGGCC
TGCAGCCCCCAGCCTGTGTCTACAGGCCTCCGAGTCATTATTATTACGGTTTCTATCCCT
GGGTTATTGATTTCACTGTTTAGTGAAGGAGATCTAAAGCTTTTAAGCCAGAAATT

75541 GATCTAGAGCAGCCCTCTGTTTGTCTGCCCTGGGCCATCCCCTATTTCAAGCAGTCTTTA
GTCCAGGAAGTTTAGGTAGCAGCTCAGGCAGCAGGTGAGCTCTGGAGAGTGCAGGTTCCG
GTTCTTTGAGCCCAAGGGGCACAACCTCTGAGTTGAAGTGACTCCTCCTGGCTGTTGCTTTG
AATTTAGAAGAGCTGCCCTTTACCAGCAAGGCAGTCACGCAAAAGATGCTTCAATGTGT
GCAAGATCAGGCCTGCAGCCCCCAGCCTGTGTCTACAGGCCTCCGAGTCATTATTATTAC
[G, T]
GTTTCTATCCCTGGGTTATTGATTTCACTGTTTAGTGAAGGAGATCTAAAGCTTTT
AAGCCAGAAATTAAGAGGTAATGGAATTTGGCATGCCACTGGAAATGAATTTGCAAAAT
GAGAATTTCAATGTTCTAAAAAACTCCCATAAAAATAAAACCAAAACCCAGAAGTGAATG
CTCCTGTGACTGCATTTTTTCCAAATGTGCATGGGTTTGTCTCCTTTAGAGTGTGGCT
GTATACATTATGGAATAATGAGATTTTGATGGTGTCTCGTTCCTACAATTGCTCTTATTA

75957 CAAATGAGAATTCAATGTTCTAAAAAACTCCCATAAAAATAAAACCAAAACCCAGAAGT
GAATGCTCCTGTGACTGCATTTTTTTCCAAATGTGCATGGGTTTGTCTCCTTTAGAGTG
TGGCTGTATACATTATGGAATAATGAGATTTTGATGGTGTCTCGTTCCTACAATTGCTCT
TATTACTTATCACAATAACAATGTATTTCATTTATATACTAATATTACTTAGTACCTATA
ATGAAGCAGGTGCTATGTTTGGCTCTAGCGATTAAAAACAATAAAAAATGCAAGATGCC
[T, G]
CCACCTGTCTCAGGGAGCTTGAGGTTTCAGTATTAATTATATCGCTAGCCAATTCTGGC
ATGGTGCTTACTGTGACAGGAACCTCTCTAAATGCTTCACGTGTAGTAACTCATTTAAA
TTTTACATTGATCCTATGAAGTGGGGTAAGCAACAGAGGAACAGAGAAGTTAAATAACTT
GCCCAAGCTGAAGTGAGAGGTGGAACCTGTGATCCGGCCAAGGCAGTCCGGCTCTAGAATC
CATGGTTTTTAGCCATGATGCTCTACTCTAGTGGATAGTTACAGCCAGTAGCTATTGGT

76415 GGAACAGAGAAGTTAAATAACTTGCCCAAGCTGAAGTGAGAGGTGGAACCTGTGATCCGGC
CAAGGCAGTCCGGCTCTAGAATCCATGGTTTTTTAGCCATGATGCTCTACTCTAGTGGATA
GTTACAGCCCAGTAGCTATTGGTTACTAGATTGGTTCTAGAAGACAAGGAAGCACTCAGG
TCCTTAGTCACAGAGCAGGAGTCTCTGACTCAACCTATGGGACCCCAAGAGGACCTTCA
TTACCTGTGAGTCAACTGCAGAGAGTCGTGATTACCTCCTGGTTGTCTTTAGAGTGGC
[A, C]
GGGCTTTGTGTCTTAACATAAGGTGTTGAAGCTGGGTCAACCTTTTCGATCTAAAACCAA
TGTCCATGGGTTATCATTTCAGGTCTGCAATTAAGAGTAGCTTGTCACTTTATATTGGGAA
CATTTATTTTTCTCTCTATGAAAATGGGCAGAAGAGATGAAAAGCCTGCTGGTG
CAGCTTAACCTTTCCTCAGTAAGTGAGTGTTTAACCTTTTGTTTTTTTAAAAATGGAGATG
AGACATACAAATTATGACTTCTCTATGTTGTCTTTTTTTTAGTTGGAAGAAGGTGACAT

77872 TCTTGTAGCTGCTTTTGTAGTCCAGTACAGTTTTTTAAAAATAGAAATTGGATAGACCCA
TTTTTAATGGGAATGATCTCAAGTGACAGAGAGCAAGGCATATATCAGACACTCTCCTC
AGGACCAGGGCAATTTTCAACATCAGTTGGCAAAATTTGTTATTCTGCCTGTAGAGTGTA
AGTCCAAACTGAGATGAAAGAGTGACAGCTTGTTAGTCTGAAAGTTTATTGATCATATCA
AAGTATACACATCTATCCCTGATTCCCTAGTGGACTTGATACTTTCTCGTGGTTTAAAA
[T, A]
TTGTCTTATTTTCATCCTTCCATGTAGTCAAAGAGAGACAGAGGAAATGCATTTTCCATCA
TAAGGCACAATTTGGAAGCTACAAGAGTGCCCCCAATATGGCCTGGTCTCATAAGATAA
TATTTAGATAGATTAGTCGTTAGTGAATACCAAGGGGCTAATGAATTGAGTCTCAGAAA
TCCCCATTGTAAGGGATTAACTTGTAGTAGCAAGGAAAGCTAGCGTGTCTAAGACCATAC
GCCATGAGCAAGCATGCTAGCCCATCCTGGGTTTCTCTCTCTCTCTCCAAACAGATTCT

FIGURE 3HHHH



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

83756 CATATGTGGCCACCAGGGCTAAAATATTTACTATCTGACCCTTTATGGAAAAAGTTGTT
GATCCCTGGTTTCAGAGTGTGTTTGAATAAAGTCAAGATGAAAGAAGGCAAAATGTAATGATGA
TTGACTTTTCCAGTTGTAATCTGATTGTGACAACCACTGTATGCCTGTTTAAACAAAGC
TTAATGGGCATTACTTAGGATAAATGTAATTACGTTTCAATATTTGTGTCTTGCTCTCCC
TACATAGGGTTATTCCAGGTTTGCCCAAGGAACAGAGAGTCTGTTTGTGTTCTAGAAAGT
[C, T, A]
GCTCCTGTGTCTGTACCTCCTCTCCAAGGCTTCCACCTGTGCTTTTATCCCAAGTTC
ACCCGTGTGAACAGCATGTGTTTCGGCTGCCATGACAGCAGTCCCTACCTTTTCCCTGG
CTTGAAAGAAGATGGCAGGGGCCAGCTCAGGAAGAACTGCTACGGAGTTTTCACCTTC
TCCTGCTCGTGATGAGGCTAGGGAGGATTTTTCAGCTATCTTAAATTGTTGCCGAAGTA
TGAAGTCCGGGAAGGGGCAACTGTGAAGCAGTGTATGATAGACTAAGTCTCCTGGAAGA

84687 GGGTGTACTTGGACCATCTCATTTAATCCTCACAACAACCCTGTGGGAAGGTATTATC
TCTAGTTTGCAAATGAGGAACTAGGCTCAGAGAGGTTCAAACAACCTGCCCAAGGTTCT
GAAGTTAATAACGGCCACAGCCAGGATGGCTCTTAACCTCCTGCCCTGTGGAAACAAGCTC
AACGTAAAAACATTCTTACAAGACAGAAAAGAGTGAAAAAGCAACCAAAATCCTGCCTGC
GGAAATGCCCACTTTGGGTGAACATTCTCTAGACATTTTGTGTGTGTATATGCACAG
[A, C]
AACTTGTAACATTTTGCATAATCTGGGCCACCCCATGCCTGCAAGCTTTCTATAAATGTC
ACCATATTCTATATCCTAGCGTTTCCCCCTATTAACTAATTTCTGATTTTACAA
CTGGGTGCATGATTTTGGCTTTGGGATGCTACCATCATCCACTTAACAGTTCTCTCTA
GATCACTGCAGGTTCTTGAGTAGGGGAATAATGTATTGGAACCTTTTGTGTAAGAA
AAAAAAATAAACAACCTTTAACTGAGTCTTATGCTTTTCCCTTTCTTGCAGCATGC

84761 GAGGAACTAGGCTCAGAGAGGTTCAAACAACCTTGCCCAAGGTTCTGAAGTTAATAACGG
CCACAGCCAGGATGGCTCTTAACCTCCTGCCCTGTGGAAACAAGCTCAACGTAAACATTC
TTACAAGACAGAAAAGAGTGAAAAAGCAACCAAAATCCTGCCTTGCGGAAATGCCCACTT
TGGGTGAACATTCTCTAGACATTTTGTGTGTGTATATGCACAGAACTTGTAACATT
TTGCATAATCTGGGCCACCCCATGCCTGCAAGCTTTCTATAAATGTCACCATATTCTATA
[C, T]
CCTAGCGTTTCCCCCTATTAACTAATTTTCTGATTTTCACTAAGGTTGCATAGTA
TTTTGCTTTGGGATGCTACCATCATCCACTTAACAGTTCTCTCTAGATCACTGCAGGTT
CTTGAGTAGGGGAATAATGTATTGGAACCTTTTGTGTAAGAAAAAATAAACA
ACTTTTAACTGAGTCTTATGCTTTTCCCTTTCTTGCAGCATGCTCTGATGCTGACA
ATGCGGGAGTCAGTCCAATAGGAACTCTTCAACAACAGCAGCCACTGGGACCTCGGCA

84911 CAAAATCCTGCCTTGCGGAAATGCCCACTTTGGGTGAACATTCTCTAGACATTTTGT
GTGTGTATATGCACAGAACTTGTAACATTTTGCATAATCTGGGCCACCCCATGCCTGCA
AGCTTTCTATAAATGTCACCATATTCTATATCCTAGCGTTTCCCCCTATTAACTAA
TTTTCTGATTTTCACTAAGGTTGCATAGTATTTGCTTTGGGATGCTACCATCATCCAC
TTAACAGTTCTCTCTAGATCACTGCAGGTTCTTGAGTAGGGGAATAATGTATTGGAACC
[-, T]
TTTTTTTTTGAAGAAAAAATAAACAACCTTTTAACTGAGTCTTATGCTTTTCC
TTTCTTGCAGCATGCTCTTGATGCTGACAATGCGGGAGTCAGTCCAATAGGAACTCTT
CCAACAACAGCAGCCACTGGGACCTCGGCAGTGCCTTTTCTTGTGGAAGTGTCAATTA
CGACCATAGGTACCCGTTTGTGTTGCTAATATCTCTCCTCTGCAGGTCTTGTAGTAAG
GGCGCTTAGTCAGTGTGTTTGTCTCATAGCATACACTATAGTTTGAGGTTGAGGAGGC

84921 CCTGCGGAAATGCCCACTTTGGGTGAACATTCTCTAGACATTTTGTGTGTGTATAT
GCACAGAACTTGTAACATTTTGCATAATCTGGGCCACCCCATGCCTGCAAGCTTTCTAT
AAATGTCACCATATTCTATATCCTAGCGTTTCCCCCTATTAACTAATTTTCTGATT
TTCACAACTGGGTGCATAGTATTTGCTTTGGGATGCTACCATCATCCACTTAACAGTT
CTCTCTAGATCACTGCAGGTTCTTGAGTAGGGGAATAATGTATTGGAACCTTTTGTGTA
[-, T]
GAAGAAAAAATAAACAACCTTTTAACTGAGTCTTATGCTTTTCCCTTTCTTGTGCA
GCATGCTCTTGATGCTGACAATGCGGGAGTCAGTCCAATAGGAACTCTTCAACAACAG
CAGCCACTGGGACCTCGGCAGTGCCTTTTCTTGTGGAAGTGTCAATACGACCATAGG
TACCCGTTTGTGTTGCTAATATCTCTCCTCTGCAGGTCTTGTAGTAAGGGCGCTTAGT
CAGTGTGTTGCTCTCATAGCATACACTATAGTTTGAGGTTGAGGAGGCTTACGAAACA

FIGURE 3JJJJ



Docket No.: CL000858
Serial No.: 09/729,920
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Title: ISOLATED HUMAN TRANSPORTER...

85786

ACCTTTTCTTACCTTCCCAGAGACTGTTGCTTTTCATCTGTTTTGATTGTTGATTTTAACA
CTCATCCCCATGTCTTTAAATATCATGCTTGTGCTACTTCTGGAATTTTCAGTTTTGGGG
ATTTTTTTTGACTTTCCATTGTGGAAGATGAGGAGTTAGTTCCTTCTTCTGCCTGCCTC
ATCACAAGGGGCTCTTTTCTGTCTCTGTCTTCCCAATATTTAATTAGATAGAAGTG
AAACATCTGCATGATTTTGACTAGATAAATGCTTTCTGCAGCTGATCATAGAGTGAACAG
[C, T]
GATGACCTCTTCTGTATCAGTCTTTGTCTTATTTTTTGATGTGTGTCTTTTTTTTCT
GACACTTGGTGAGTTTGTATTTTTGTCTTAGGGGTTAACTTTATTTATTTATTTATTTT
ATTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT
CCCAGGCTGGAGTGCAGTGGTGCAATCTCGGCTCACTGCAACCTCCGCCTCACGGGTTC
AGTGATTCTCTTGCCTCATTCTCCTGAGTAGCTGGGATTACAGGCGCCACCACCATGCC

85903

GGGATTTTTTTTGACTTTCCATTGTGGAAGATGAGGAGTTAGTTCCTTCTTCTGCCTGC
CTCATCACAAGGGCTCTTTTCTGTCTCTGTCTTCCCAATATTTAATTAGATAGAA
GTGAAACATCTGCATGATTTTGACTAGATAAATGCTTTCTGCAGCTGATCATAGAGTGAA
CAGTGATGACCTCTTCTGTATCAGTCTTTGTCTTATTTTTTGATGTGTGTCTTTTTT
TTCTGACACTTGGTGAGTTTGTATTTTGTCTTAGGGGTTAACTTTATTTATTTATTTA
[T, -]
TTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT
TCACCCAGGCTGGAGTGCAGTGGTGCAATCTCGGCTCACTGCAACCTCCGCCTCACGGGT
TCAAGTGATTCTTTCCTCATTCTCCTGAGTAGCTGGGATTACAGGCGCCACCACCAT
GCCTAGCTAATTTTTGTATTTTATTTAGTAGAGATGGGGTTTACCACATTGGCCAGGCTGGT
CTCAAACCTCCTGACCTCAGGTGATCTGCCCGCTCAGCCTCCCAAAGTGTGGGATTACC

85906

ATTTTTTTTGACTTTCCATTGTGGAAGATGAGGAGTTAGTTCCTTCTTCTGCCTGCCTC
ATCACAAGGGGCTCTTTTCTGTCTCTGTCTTCCCAATATTTAATTAGATAGAAGTG
AAACATCTGCATGATTTTGACTAGATAAATGCTTTCTGCAGCTGATCATAGAGTGAACAG
TGATGACCTCTTTCCTGTATCAGTCTTTGTCTTATTTTTTGATGTGTGTCTTTTTTTTCT
TGACACTTGGTGAGTTTGTATTTTGTCTTAGGGGTTAACTTTATTTATTTATTTATTT
[T, -]
ATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTT
CCCAGGCTGGAGTGCAGTGGTGCAATCTCGGCTCACTGCAACCTCCGCCTCACGGGTTC
AGTGATTCTCTTGCCTCATTCTCCTGAGTAGCTGGGATTACAGGCGCCACCACCATGCC
TAGCTAATTTTTGTATTTTATTTAGTAGAGATGGGGTTTACCACATTGGCCAGGCTGGTCTC
AAACTCCTGACCTCAGGTGATCTGCCCGCTCAGCCTCCCAAAGTGTGGGATTACCGGC

85908

TTTTTTTGACTTTCCATTGTGGAAGATGAGGAGTTAGTTCCTTCTTCTGCCTGCCTCAT
CACAGAAGGGCTCTTTTCTGTCTCTGTCTTCCCAATATTTAATTAGATAGAAGTGAA
ACATCTGCATGATTTTGACTAGATAAATGCTTTCTGCAGCTGATCATAGAGTGAACAGTG
ATGACCTCTTTCCTGTATCAGTCTTTGTCTTATTTTTTGATGTGTGTCTTTTTTTTCTG
ACACTTGGTGAGTTTGTATTTTGTCTTAGGGGTTAACTTTATTTATTTATTTATTTA
[T, -]
TTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT
CAGGCTGGAGTGCAGTGGTGCAATCTCGGCTCACTGCAACCTCCGCCTCACGGGTTCAG
TGATTCTCTTGCCTCATTCTCCTGAGTAGCTGGGATTACAGGCGCCACCACCATGCCTA
GCTAATTTTTGTATTTTATTTAGTAGAGATGGGGTTTACCACATTGGCCAGGCTGGTCTCA
ACTCCTGACCTCAGGTGATCTGCCCGCTCAGCCTCCCAAAGTGTGGGATTACCGGCGT

85913

TTGACTTTCCATTGTGGAAGATGAGGAGTTAGTTCCTTCTTCTGCCTGCCTCATCAGAG
AAGGGCTCTTTTCTGTCTCTGTCTTCCCAATATTTAATTAGATAGAAGTGAAACATC
TGATGATTTTGACTAGATAAATGCTTTCTGCAGCTGATCATAGAGTGAACAGTGATGAC
CTCTTCTGTATCAGTCTTTGTCTTATTTTTTGATGTGTGTCTTTTTTTTCTGACACT
TGGTGAGTTTGTATTTTGTCTTAGGGGTTAACTTTATTTATTTATTTATTTATTTA
[T, -]
TTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTTATTTT
TGGAGTGCAGTGGTGCAATCTCGGCTCACTGCAACCTCCGCCTCACGGGTTCAGTGATT
CTCTGCCTCATTCTCCTGAGTAGCTGGGATTACAGGCGCCACCACCATGCCTAGCTAA
TTTTTGTATTTTATTTAGTAGAGATGGGGTTTACCACATTGGCCAGGCTGGTCTCAAACCTC
TGACCTCAGGTGATCTGCCCGCTCAGCCTCCCAAAGTGTGGGATTACCGGCGTGAGCC

FIGURE 3KKKK



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89478

GTATGCCTGTATAACCTCAGGGTATGTAATTTAGATTTTAATTTGTTACCTGATATTTG
CATTGTGTTTTAGTCGTAGCTCTATAGTTAGATATCATTAAATGTTTCATCTCTAGTCCTTTT
GCTGTGGTTTTATCTCATGATCACTTACTTGGCTGAAAGTCATCTTCAAGTAGTTGCCTTA
AGAATGGCTCAGGGGAGCAATATTCTGTGAGATCTTGCATTGTTACAGTTGTAGCTTAA
CATTTGAAGGATAGTTGAAACAAAATGAAATCCATTTTATTGACTCACATTTTCTTTTTC
[-, T]
TTTTTTTTTTGAGACTGGGTCTTGCTCTGTTGTCCAGGCTGGAGTACAGTGGTATGAACA
TAGCTCACTGCAGTCTCCAACCTCTGGGCCCAAGTGATCTTTTGGCTTCAGCCTCCTGAG
TAGCTGGGACTACAGGCGCATACCACAGGGCTAGCTAATTTTAAAAATATTTTGTAGAA
GCCAGGTCTTGCTGTGTTGCCAGACTGGTCTCAGACTCCTGGCCTCAAAGGATCCTCCT
ACCTTGGCCTCCAGAGTGCTAGGATTACATGTGTGAGCCACCACGCCTGGCTTTACATT

89488

ATAACCTCAGGGTATGTAATTTAGATTTTAATTTGTTACCTGATATTTGCATTGTGTTTT
AGTCGTAGCTCTATAGTTAGATATCATTAAATGTTTCATCTCTAGTCCTTTTGTGCTGGTTTT
ATCTCATGATCACTTACTTGGCTGAAAGTCATCTTCAAGTAGTTGCCTTAAGAATGGCTC
AGGGGAGCAATATTCTGTGAGATCTTGCATTGTTACAGTTGTAGCTTAACATTTGAAGG
ATAGTTGAAACAAAATGAAATCCATTTTATTGACTCACATTTTCTTTTCTTTTCTTTT
[-, T]
GAGACTGGGTCTTGCTCTGTTGTCCAGGCTGGAGTACAGTGGTATGAACATAGCTCACTG
CAGTCTCCAACCTCTGGGCCCAAGTGATCTTTTGGCTTCAGCCTCCTGAGTAGCTGGGAC
TACAGGCGCATACCACAGGGCTAGCTAATTTTAAAAATATTTTGTAGAAGCCAGGTCTT
GCTGTGTTGCCAGACTGGTCTCAGACTCCTGGCCTCAAAGGATCCTCCTACCTTGGCCT
CCCAGAGTGCTAGGATTACATGTGTGAGCCACCACGCCTGGCTTTACATTTTCTTTTAA

91631

TTGCTTTTGTGTTTTAAGATCTAGCCTTCAGGACCTATGTTGTTTTCTAGGTGAAATCCAGAA
AGTCATATGCAACAAGAACATTTTGGATGAAGGAAAAATTGCCATTGTTATTTAGAAACAC
TCTTAATCTAATTATATGACATGCTAGGTTTACACTTGCAAATCTGCAAATATATTTGGTG
TTAGCTATTAAAAAGTATTCAAGATGCCCATGACACCAGTGGGTCTGGGGCTTAGAAGCCT
TTTCTGGCACTCTAGGCCAGGTTAGGTGAGCTTAATCCACAGACTCACAGCGTCCAACAA
[A, G]
GGAAGCTGGGTGGCTGACACCATTTAGTATACGGGCAAAAAGTGTTAGCAACCTGAACA
ACACCAGAGGGCGTTGCTGTAGTGGATCCAAGAAGACCAATGTGAGGTTTCATTGTGTTT
AGCAGATTGTTAACCTGGGAAAAAGTGTCACGCATTGTAGGAGGATCTATTGTACACCAA
TTAAAAATTGAGAAAGTCTGGGCCACTTCAAGAAGTACATTTTGGAAAATGCTCTCTGATA
CCCGGTATTGGATTATGAGACATTAGTGTGTATATTGAAGGAACTCCTAATTTTCTTG

91898

CAGCTTAATCCACAGACTCACAGCGTCCAACAAAGGAAGCTGGGTGGCCTGACACCATTT
AGTATACGGGCAAAAAGTGTTAGCAACCTGAACAACACCAGAGGGCGTTGCTGTAGTGGGA
TCCAAGAAGACCAATGTGAGGTTTCATTGTGTTTCAAGCAGATTGTTAACCTGGGAAAAAGT
GTCACGCATTGTAGGAGGATCTATTGTACACCAATTAATTAAGTGAAGTCTGGGCCACT
TCAAGAAGTACATTTTGGAAAATGCTCTCTGATACCCGGTATTGGATTATGAGACATTA
[G, C]
TGTGTATATTGAAGGAACTCCTAATTTTCTTGTTCATGACATGGCTAAATGAATGATC
TGTCTGCTGCATTGAAAAACACTATGGCTACATTGGAAGGTGCATTAATGGTATTATTG
TGTTAGCTTGTTAGGAATCCAGGAACCTGGTTTTATTGAACAACATATGTTTATTGATCCAC
ATAATATTATGTGACTGAGGAATGGTGGCTCCATCTGCCTAATGAAGAAGCTTTGATATG
CGATGGTTTTTGGCCTTTTTTGTGTGTGTGCTTACACCGAATCTTTGAGTTTGAGCAAA

93506

AATTTAACTCCAGAGTGGAGGATCTTTATAGAGTCATACAGTTAGAGAATCCAAAGAA
GCCCTTAATACAATGTAAGTAAGAATAATGAGGTGCAGAAATAATGTTTTTCCAGTTAC
TTAGTGGTAAATTCATTTGTTGCATGTGGTCGCAAGGTTTATAAGAAAACCTCAGAGCCCA
GCAATTCCTCCAGTTCTTCTGAGCAATTTTCCACTAGTTAGGAGTCAGGAAAGAGGAAC
CGTGAGAGCTGAGGAGCTGTGTATTTCATTAATGTGAAATACACAAATATTGGCCTGTT
[T, C]
CCTTGGCATCATAAAATTTGCAACGTAATATTGCAGACATTTTTCATATTACTAAAAGTT
CTTTGAAAAGTGATTCTTTGATGGTTTCTATTGGATCCACTATTCACTATAATCACA
TATTCCTGGGAACCTAAGCTGTTTCTATTTTAGTAATAGTGAACACCATGGTGTAAACG
TTGTGAAGTGTGGTCTTCATCTCTGGTGTGTCCTTGGAAGGTTACCAAGGGTTTGCTC
TGTCAAAGGAAATGAAAGGCTTGCCAAATTTCTTTCCAGAAAGGCTCTCATGAGCAGCTT

FIGURE 3MMMM

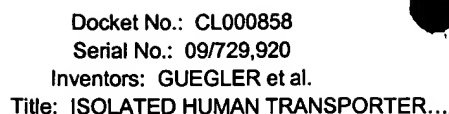


FIGURE 3NNNN



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Title: ISOLATED HUMAN TRANSPORTER...

95657 TCTCTTCTGAAAAACGGGGAACCTTTTCTAGCCAGAGGTGAACAGATCTGAGCTCATC
CTGGTGCTGTGCGTTTCATTACAGCCTCCCTTGGCTGTTTGCCCTTGTGGAGTTGGTTGT
CTTCTGCTGAAAGTCACCACCTGATGCTGTGGGTGCTATGGGAGAACAGTGAAGTTTCTG
GAGGGAAGATAGGAATCAACCGCCTGTTTCTCCTGGGACTGAGTTTCTGGAGACATA
TTGCTCAGAAACAATTCTTCCCACAGTAAAGCACAAAGGCAAACGGGGTGCTTAGTTGC
[A, T]
TCATATTTACAGGTATTTAATCTTCACATGTAACCTCTTGCTTTGCATGTAACCTCATTTA
ATCTTTAATAGCTATGGGTAGGCATTTAATAGCCTTGTCTTTTGATGAAGAAAGTGAGG
GAGAGAGATTAAGAATGTGCCTATGACCTGAGAGTTGGTAAATAGAAGAATCAGAACAGA
AATCTGTGTAGTCTCTAGTTCTAGAGCCTACAGACAACCTGTACACCTTACTTCAAAGTT
CTACCCAAGCATTCTAGAAGGATGAGCAGGGCAGTCAGAGAGGCGGGGTGTAAC TAGATC

96312 AAGTGCTGGAATTTTCCCAGAGTGACAGTGTTGAGGGTCAAACAGTCTCTCCTTATAGTT
CACCAAAGGCATGGAGCACAAATACACTCACACACAGCCCATGCATGAGATACAGCATC
ACTCAAGAATGATGACTTTCTGTCCACTGGGCAGTGTGTACCAAAGAAAGATGGCTGTG
AATATATTTAAAGGCTTGTGTTGAGTATTGCATCACTCATGCTCTTACCCAAGAACTTAGC
TTTAATATTATTTTGTGTTCTAGTCAACAAAACACTGAACAAATAAGGAACCAATTGTG
[-, A]
TAATAATAATAATAACTTTGCATTGGTACAGTACTTTACAGTCCATTGATTTTTTCCC
CCCTGCATTTTCCCTTGAGTACCTCTGACACTAGGATTTGCAGATGTTAAGTGGGTCTAAG
GAGAACTAGTGTGAGGTGGAATTTGATCCAGATCTTTTCTCTCCTCACTTCTCCCT
GATGCTCCATGGTAAGCCACAGTGCCTTACCCAGGAGGTGGGTGGGGGTGGTGCATCTCTG
AAAGCTGGAGGAAGGGGTGTAGCACTTGTGAGGATTAATGAGATGCCTGTTTATCCAGT

96315 TGCTGGAATTTTCCCAGAGTGACAGTGTTGAGGGTCAAACAGTCTCTCCTTATAGTTTAC
CAAAGGCATGGAGCACAAATACACTCACACACAGCCCATGCATGAGATACAGCATCACT
CAAGAATGATGACTTTCTGTCCACTGGGCAGTGTGTACCAAAGAAAGATGGCTGTGAAT
ATATTTAAAGGCTTGTGTTGAGTATTGCATCACTCATGCTCTTACCCAAGAACTTAGCTTT
AATATTATTTTGTGTTCTAGTCAACAAAACACTGAACAAATAAGGAACCAATTGTGATA
[-, A]
TAATAATAATAATACTTTGCATTGGTACAGTACTTTACAGTCCATTGATTTTTTCCCCC
TGCAATTTTCCCTTGAGTACCTCTGACACTAGGATTTGCAGATGTTAAGTGGGTCTAAGGAG
AACTAGGTAGTGTGAGGTGGAATTTGATCCAGATCTTTTCTCTCCTCACTTCTCCCTGAT
GCTCCATGGTAAGCCACAGTGCCTTACCCAGGAGGTGGGTGGGGGTGGTGCATCTCTGAAA
GCTGGAGGAAGGGGTGTAGCACTTGTGAGGATTAATGAGATGCCTGTTTATCCAGTTCC

96329 CAGAGTGACAGTGTTGAGGGTCAAACAGTCTCTCCTTATAGTTTACCAAAGGCATGGAGC
ACAAATACACTCACACACAGCCCATGCATGAGATACAGCATCACTCAAGAATGATGACT
TTCTGTCCACTGGGCAGTGTGTACCAAAGAAAGATGGCTGTGAATATATTTAAAGGCTT
GTTTGAGTATTGCATCACTCATGCTCTTACCCAAGAACTTAGCTTTAATATTATTTTGT
GTTCTAGTCAACAAAACACTGAACAAATAAGGAACCAATTGTGATAATAATAATAAAT
[-, T, A]
CTTTGCATTGGTACAGTACTTTACAGTCCATTGATTTTTTCCCCCTGCATTTTCCCTTGA
GTACCTCTGACACTAGGATTTGCAGATGTTAAGTGGGTCTAAGGAGAACTAGGTAGTGTG
AGGTGGAATTTGATCCAGATCTTTTCTCTCCTCACTTCTCCCTGATGCTCCATGGTAAGC
CACAGTGCCTTACCCAGGAGGTGGGTGGGGGTGGTGCATCTCTGAAAGCTGGAGGAAGGGG
GTGTAGCACTTGTGAGGATTAATGAGATGCCTGTTTATCCAGTTCCAAGCCTCCACTTGT

96370 TTCACCAAAGGCATGGAGCACAAATACACTCACACACAGCCCATGCATGAGATACAGCA
TCACTCAAGAATGATGACTTTCTGTCCACTGGGCAGTGTGTACCAAAGAAAGATGGCTG
TGAATATATTTAAAGGCTTGTGTTGAGTATTGCATCACTCATGCTCTTACCCAAGAACTTA
GCTTTAATATTATTTTGTGTTCTAGTCAACAAAACACTGAACAAATAAGGAACCAATTG
TGATAATAATAATAATAACTTTGCATTGGTACAGTACTTTACAGTCCATTGATTTTTT
[C, T]
CCCCCTGCATTTTCCCTTGAGTACCTCTGACACTAGGATTTGCAGATGTTAAGTGGGTCTA
AGGAGAACTAGGTAGTGTGAGGTGGAATTTGATCCAGATCTTTTCTCTCCTCACTTCTCC
CTGATGCTCCATGGTAAGCCACAGTGCCTTACCCAGGAGGTGGGTGGGGGTGGTGCATCTC
TGAAAGCTGGAGGAAGGGGTGTAGCACTTGTGAGGATTAATGAGATGCCTGTTTATCCA
GTTCCAAGCCTCCACTTGTGTTGCTATGTCTGCAATATATTTCTTTCTGAGACACTTGA

FIGURE 30000



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96372 CACCAAAGGCATGGAGCACAAATACACTCACACACACGCCCATGCATGAGATACAGCATC
ACTCAAGAATGATGACTTTCTGTCCACTGGGCAGTGTGTACCAAAGAAAGATGGCTGTG
AATATATTTAAAGGCTTGTGTGAGTATTGCATCACTCATGCTCTTACCCAAGAACTTAGC
TTTAATATTATTTTGTGTTCTAGTCAACAAAACACTGAACAAATAAGGAACCAATTGTG
ATAATAATAATAATAACTTTGCATTGGTACAGTACTTTACAGTCCATTGATTTTTTTC
[C, T]
CCCTGCATTTTCTTGAGTACCTCTGACACTAGGATTTGCAGATGTTAAGTGGGTCTAAG
GAGAACTAGGTAGTGTGAGGTGGAATTTGATCCAGATCTTTTCATCTCCTCACTTCTCCCT
GATGCTCCATGGTAAGCCACAGTGCCTTACCCAGGAGGTGGGTGGGGTGGTGCATCTCTG
AAAGCTGGAGGAAGGGGTGTAGCACTTGTGAGGATTAATGAGATGCCTGTTTCATCCAGT
TCCAAGCCTCCACTTGTGTGCTATGTCTGCAATATATTTCTTTCTGAGACACTTGGACA

96439 AATGATGACTTTCTGTCCACTGGGCAGTGTGTACCAAAGAAAGATGGCTGTGAATATAT
TTAAAGGCTTGTGTGAGTATTGCATCACTCATGCTCTTACCCAAGAACTTAGCTTTAATA
TTATTTTGTGTTCTAGTCAACAAAACACTGAACAAATAAGGAACCAATTGTGATAATAA
TAATAATAATACTTTGCATTGGTACAGTACTTTACAGTCCATTGATTTTTTCCCCCTGC
ATTTTCTTGAGTACCTCTGACACTAGGATTTGCAGATGTTAAGTGGGTCTAAGGAGAAC
[T, C]
AGGTAGTGTGAGGTGGAATTTGATCCAGATCTTTTCATCTCCTCACTTCTCCCTGATGCTC
CATGGTAAGCCACAGTGCCTTACCCAGGAGGTGGGTGGGGTGGTGCATCTCTGAAAGCTG
GAGGAAGGGGTGTAGCACTTGTGAGGATTAATGAGATGCCTGTTTCATCCAGTTCCAAGC
CTCCACTTGTGTGCTATGTCTGCAATATATTTCTTTCTGAGACACTTGGACAACCTATA
TTCCCCAAAGTTAGGCTATTGTGAGACAGTCAAGCTGGGGTCTTCAGTGTTTTCACAAGT

96468 TGTACCAAAGAAAGATGGCTGTGAATATATTTAAAGGCTTGTGTGAGTATTGCATCACT
CATGCTCTTACCCAAGAACTTAGCTTTAATATTATTTTGTGTTCTAGTCAACAAAACAC
TGAACAAATAAGGAACCAATTGTGATAATAATAATAATAACTTTGCATTGGTACAGTA
CTTTACAGTCCATTGATTTTTTCCCCCTGCATTTTCTTGAGTACCTCTGACACTAGGA
TTTGCAGATGTTAAGTGGGTCTAAGGAGAACTAGGTAGTGTGAGGTGGAATTTGATCCAG
[G, A]
TCTTTCATCTCCTCACTTCTCCCTGATGCTCCATGGTAAGCCACAGTGCCTTACCCAGGA
GGTGGGTGGGGTGGTGCATCTCTGAAAGCTGGAGGAAGGGGGTGTAGCACTTGTGAGGAT
TAATGAGATGCCTGTTTCATCCAGTTCCAAGCCTCCACTTGTGTGCTATGTCTGCAATAT
ATTTCTTTCTGAGACACTTGGACAACCTATATTCCCCAAAGTTAGGCTATTGTGAGACAG
TCAAGCTGGGGTCTTCAGTGTTTTCAAGTTACTTGAATGTTTCCAAGAGTCACCATAA

96501 AAAGGCTTGTGTGAGTATTGCATCACTCATGCTCTTACCCAAGAACTTAGCTTTAATATT
ATTTTGTGTTCTAGTCAACAAAACACTGAACAAATAAGGAACCAATTGTGATAATAATA
ATAATAATACTTTGCATTGGTACAGTACTTTACAGTCCATTGATTTTTTCCCCCTGCAT
TTTCTTGAGTACCTCTGACACTAGGATTTGCAGATGTTAAGTGGGTCTAAGGAGAACTA
GGTAGTGTGAGGTGGAATTTGATCCAGATCTTTTCATCTCCTCACTTCTCCCTGATGCTCC
[A, G]
TGGTAAGCCACAGTGCCTTACCCAGGAGGTGGGTGGGGTGGTGCATCTCTGAAAGCTGGA
GGAAGGGGTGTAGCACTTGTGAGGATTAATGAGATGCCTGTTTCATCCAGTTCCAAGCCT
CCACTTGTGTGCTATGTCTGCAATATATTTCTTTCTGAGACACTTGGACAACCTATATT
CCCCAAAGTTAGGCTATTGTGAGACAGTCAAGCTGGGGTCTTCAGTGTTTTCAAGTTA
CTTGAATGTTTCCAAGAGTCACCATAAACCTGCATAAAGTGAACCTGTAGAGGCTCATTT

97217 TTTTGCATATTTAAATCAAAATCCTGGTGAGTAAAGGAAATACAAGATGAGGAAGCCTAG
CCTGAACACTCATTTTAGAAATGGAAGCTGTAATTTAGATTATTATAAGAGGTTTGAATG
ATTGAGAACAGAAGATTGCAAAAGAAAGTATCCAGGTGACTCATTCCGAAGGCAGGAAGG
CAACCGTGAGTTCTGCAGGCCTGTGGGTGGCTGAATGATGGAATAACCATCAACGTTTTT
TTATCATGTTGCATTCCCAACCTGTCAATAACCATGGACCAATAACTCACTCATTTGAAT
[A, G]
GATTGAGAAACAGGCCCCACATGATTTACCCAGATTTGGGAGAATGGTTAGATTACTGTC
TAGATACTTTTAAACATAAGATTGTAATATCAATTGGCACAAAAATGAATATTAATTAAT
TTAGACTTTTCATCTCCATATAAAGTGTGCTAATGCTATAGGACTTTTCTTCCAGCAATA
CTTTCTTTAGCCTCATCCATATAGGGTAAGCCAGTACTCATTGTACATAAATTACTTAT
GTAATGGCAGTACTCTTAAGATTGCAGATGCGGGTATTTTCAAAGCACTATTTGAAATAC

FIGURE 3PPPP



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97449

ACGTTTTTTTATCATGTTGCATTCCCAACCTGTCAATAACCATGGACCCAATAACTCACT
CATTGAATAGATTAGAAACAGGCCCCACATGATTACCCAGATTGGGAGAATGGTTAG
ATTACTGTCTAGATACTTTTAAACATAAGATTGTAATATCAATTGGCACAAAAATGAATA
TTAATTAATTTAGACTTTCATCTCCATATAAAGTGTGCTAATGCTATAGGACTTTTTCTT
CCAGCAATACTTTCTTTAGCCTCATCCATATAGGGTAAGCCAGTACTCATTGTACATAA
[A, G]
TTACTTATGTAATGGCAGTACTCTTAAGATTGCAGATGCGGGTATTTTCAAAGCACTATT
TGAAATACATATTAGTAGACCTGACTATAAAAAGATTCTCTTGATTCAAACATCCATCA
ATAAACTTTTAGCATCTTATTACCCTCAATGCAAGAGGTAGTTGGGTGGAGAGGTAGGAC
TCAGAGATGATGTGGAGTTCACAGTAAAGAGAAAAAAGAACCAGATGGGGCGAACTTC
ACTGGCGGTGGGGAGAGACAGCACAAAGCCTTCCCTTCCCTATTCTTCTGTTTTTAGA

98167

GAGCCCATGGGTAAGACTGTGAAAAAGAAGCTCTTGTCAAATCTAATAAGTGCAGTGGTG
ATTCTTCCCACGCATTCCAGTCTCGCTAAACTAGACATGCCCATGATGCTTGGTGTTC
AGAAAAAGGTGGTATCACTTTTGTGAGAAATGAAATGAAAGTTCTGAGTGACCATGAA
TTTCTTAAATGTGTTAATATCCAAGAAACCTTAAACCGTTTATAAGGGGAGAAGGAAG
AGAAGCAATGGAACAATGTTGCGAATTGTAGAGGGCCTTTGAAATGAAGTTCTACTCCCT
[A, G]
AAGCTCATAAGGTGGGGGAATGTACAAACTTTTAAAAAGTCTGTGAGTTCTTTGGTCAG
TATGCTAATTTCTCTGCCACTCTCCCTCTTTTTCATATTTCTCACCAGGGTATGGGAATA
TTGCTCCGAGCACTGAAGGAGGCAAAATCTTTGTATTTTATATGCCATCTTTGGAATTC
CACTCTTTGGTTTTCTTATTGGCTGGAATTGGAGACCAACTTGAACCATCTTTGGGAAAA
GCATTGCAAGAGTGGAGAAGGTGTTTCGAGTGAGTACTGTGTCATATTTAAATTTAACC

98430

AATTGTAGAGGGCCTTTGAAATGAAGTTCTACTCCCTAAAGCTCATAAGGTGGGGGAATG
TACAAACTTTTAAAAAGTCTGTGAGTTCTTTGGTCAGTATGCTAATTTCTCTGCCACTC
TCCCTCTTTTTCATATTTCTCACCAGGGTATGGGAATATTGCTCCGAGCACTGAAGGAGG
CAAAATCTTTTGTATTTTATATGCCATCTTTGGAATCCACTCTTTGGTTTCTTATGGC
TGGAAATTGGAGACCAACTTGAACCATCTTTGGGAAAAGCATTGCAAGAGTGGAGAAGGT
[G, C]
TTTCGAGTGAGTACTGTGTCATATTTAAATTCTAACCCTGCGATCCAATTGGCTTTAGC
CTGACAGGATCCAGGAGGCAGTATCAGGGGCATTGTCTGCTTTTAAATGGAATAATTTAA
TGTTATGATTGTATTTTCTGTTTTGGCCAATGGAAGTCAAACATCTTGACCTAAACTC
CCTTCTTTGAGTAGCTTCTATTTTAGAGTGATATTTCTGCAATCACAACACAAGAGGGT
TAAGTATGGATTTGCCAACACAGATTTTGAAGAGGTGAGACAAGTTCAGTTTCTCCTT

98846

TTTAATGTTATGATTGTATTTTCTGTTTTGGCCAATGGAAGTCAAACATCTTGACCTA
AACTCCCTTCTTTGAGTAGCTTCCCTATTTTAGAGTGATATTTCTGCAATCACAACACAAG
AGGGTTAAGTATGGATTGGCAACACAGATTTTGAAGAGGTGAGACAAGTTCAGTTTC
TCCTTCAAGATGGAAGATGGGGTTCCTCATTGTGTTGTAATGATGTAGAAAAGTGTAA
TCCATCCATTTTGTGTTGGAACCTCCCTTACTCCGTTTTATTTTCAAGCACAGTGTCTTC
[T, C, A]
GGCTAATCCTGCTTCTTCCAGAAGCCTGACTTCTCCAGACACTGCTCTGTGCTTTGCACC
TGTCTCCTAATGGTCTCTCTCTCTCCCATCTCTCACTGCTGAGTGCTCCCTCAGAAATGG
CATCCTGATGTACTACTTCTACTGAACTGTTGATGATTGCTATTGCCTTAGTGGGTTTT
TTCTTTCTGGAATATTTATCTTTAAACAAGAGACAACTATCTCAACTCAAGGAATTTAT
TTACTAAAATTAATAATTAATAAAATTATTCCTGGCATTAGTTGCAGGCATGAGTGGC

99326

TTTCCTTTCTGGAATATTTATCTTTAAACAAGAGACAACTATCTCAACTCAAGGAATTTA
TTTACTAAAATTAATAATTAATAAAATTATTCCTGGCATTAGTTGCAGGCATGAGTGG
CTGAGTGATTAAACCGGGTTCCTCAATGCCCTTTAACTCGCACTCATTTGTATGCTTTCA
CAGAACACCTGTTTTGCTCAGATGTAAGGTCACTTCTGCCCTCTTACTCACCGCTGACCT
AATTCCTCAAGTCTTTCAAACCTTCCCTCAGGGAATGCTTCTTATGATGACTTAATATTTA
[C, A]
AAATGACATTCTGAGGTCTTTTCCAGGATCTAGGAATGGTGGCCAAAGGCAGATCAGCTG
GAAGCTCTAAAGCTGTGCTTTTTTCCCCCTCTAAGAACTCTTAACTTTGAGTTCAAGGC
TGTCTCTGCAATAATGGCTCATACTTCTCTTTAGAAGAATGCAAGGGAGCTTTCAGATGA
GCAGTTTCAGAGGCTTTTAAAAAGAGTAGAATGGGAGGAACGAGGCACCATAGCTGGGT
GAGCCATTTTATAATCTCACTGATCCTGGGTGAGTGCCTCAGTTTACTCATCCAAAA

FIGURE 3QQQQ



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

99514 CTGTTTTGCTCAGATGTAAGGTCACCTTCTGCCCTCTTACTCACCGCTGACCTAATTCTCA
AGTCTTTCAAACCTTCCTCAGGGAATGCTTTCTTATGATGACTTAATATTTACAAATGAC
ATTCTGAGGTCTTTTCCAGGATCTAGGAATGGTGGCCAAAGGCAGATCAGCTGGAAGCTC
TAAAGCTGTGCTTTTCCCCCTCTAAGAACTCTTAACTTTGAGTTCAAGGCTGTCTCT
GCAATAATGGCTCATACTTCTCTTTAGAAGAATGCAAGGGAGCTTTCAGATGAGCAGTTT
[C, T]
AGAGGCTTTTTTAAAAAGAGTAGAATGGGAGGAACGAGGCACCATAGCTGGGTGAGCCATT
TTATAATCTCACTGATCCTGGGTGAGCTGCCTCAGTTTACTCATCCACAAAAGGGGATAG
AATTTGAATCTACTTTGTGAGGTTTGGTGATGATTAAATGAAATGATGTGTGGAAGA
GCTTGTGATATAGGGCAGACATATAGAGCCAGGGCTTCTGTGTTTCTCTCAAGAGAAG
CCCTCATGGGCAGGCTAGCCACTCATCCGGGTTTCATCTGAGGAGCTCTGTGGTGTGTGA

99680 TCAGCTGGAAGCTCTAAAGCTGTGCTTTTTTCCCCCTCTAAGAACTCTTAACTTTGAGT
TCAAGGCTGTCTCTGCAATAATGGCTCATACTTCTCTTTAGAAGAATGCAAGGGAGCTTT
CAGATGAGCAGTTTCAGAGGCTTTTAAAAAGAGTAGAATGGGAGGAACGAGGCACCAT
GCTGGGTGAGCCATTTTATAATCTCACTGATCCTGGGTGAGCTGCCTCAGTTTACTCATC
CACAAAAGGGGATAGAATTTGAATCTACTTTGTGAGGTTTGGTGATGATTAAATGAAAT
[G, A]
ATGTGTGGAAGAGCTTGTGATATAGGGCAGACATATAGAGCCAGGGCTTCTGTGTTT
CTCTCCAAGAGAAGCCCTCATGGGCAGGCTAGCCACTCATCCGGGTTTCATCTGAGGAGC
TCTGTGGTGTGTGAGTTTACTGGAATGTCCACAGCCTTTGCTCCTTCATGCTGGCTGG
CCGGTGGCCTCATTAGACTGTGCACCTGGGCTCCCGAGTAGTCTCCATGGAACCATCAG
TGCTCAGCTTCCCTGCTTTTCAGATGTTTAGTTCTTCTAAACCAGACATAGCAGCCCTG

99879 AATCTCACTGATCCTGGGTGAGCTGCCTCAGTTTACTCATCCACAAAAGGGGATAGAATT
TGAATCTACTTTGTGAGGTTTGGTGATGATTAAATGAAATGATGTGTGGAAGAGCTT
GTCATATAGGGCAGACATATAGAGCCAGGGCTTCTGTGTTTCTCTCCAAGAGAAGCCCT
CATGGGCAGGCTAGCCACTCATCCGGGTTTCATCTGAGGAGCTCTGTGGTGTGTGAGTTT
TACTGGAATGTCCACAGCCTTTGCTCCTTCATGCTGGCTGGCCGGTGGCCTCATTAGAC
[T, C]
GTGCACCTGGGCTCCCGAGTAGTCTCCATGGAACCATCAGTGCTCAGCTTCCCTGCTTT
TCAGATGTTTAGTTCTTCTAAACCAGACATAGCAGCCCTGTCTCCAAGAACTCTTTGA
ACTTCTTGAAGCACCCTTTTAGCTGCTGCCTCATGGCCCTCTGACTTAGAGAAAAAGA
ATCTGGTAGTTTGAACACTCAGAACAGGATTCAATTGGGGAAATGACTGATCTGGCATT
TTATTTTATGTAGCTTCTTTAGAGCTCAGTTTCTTATTTGTAGAAGAAAGGATTGGAC

99971 AAATGAAATGATGTGTGGAAGAGCTTGTGATATAGGGCAGACATATAGAGCCAGGGC
TTCTGTGTTTCTCTCCAAGAGAAGCCCTCATGGGCAGGCTAGCCACTCATCCGGGTTTCA
TCTGAGGAGCTCTGTGGTGTGTGAGTTTACTGGAATGTCCACAGCCTTTGCTCCTTCA
TGCTGGCTGGCCGGTGGCCTCATTAGACTGTGCACCTGGGCTCCCGAGTAGTCTCCATGG
AAACCATCAGTGCTCAGCTTCCCTGCTTTTCAGATGTTTAGTTCTTCTAAACCAGACAT
[A, G]
GCAGCCCTGTCTCCAAGAACTCTTTTGAACCTTCTTGAAGCACCCTTTTAGCTGCTGCCT
CATGGCCCTCTGACTTAGAGAAAAAGAATCTGGTAGTTTGAACACTCAGAACAGGATT
AATTGGGGAAATGACTGATCTGGCATTTTTATTTTATGTAGCTTCTTTAGAGCTCAGTT
TCCTTATTTGTAGAAGAAAGGATTGGACTAAAAGTTTTTGAATCCTCCTTAGCAGAAAA
AATTCTAGTTACTATATTGAAGTGATGGAAGAGGTTGCAATCATCTGGACATCTGCTAC

100895 TCCTGCAGCAGTTTGCTTGCTGCATGTAAAGTTTTGGTAGAAAATCTCAGTTTTCTGCCA
TTGATTTAACTACATTTAAAAGTCCAATTACGTTTAGGTGGTTATTTGAGAAATGAAAA
TTGTATAAGCTAACAAAGCTTGGGGTTGTGAATTTTAGTTCTCATGGGGGAAGGTTTAT
GTATTTCTTCTGCTCAATGAGTGTAAAGCCCTTCTCTGATCTGTTATGTTTTCTCTCAG
CTCTTGGGAAGAGAGGATTTACGGTGGAGTAAAAATAAAATCTAAAGTTGGCTTTCTGCC
[G, A]
GGCATGGTGGCTCACACCTGTAATCCTAGCAGTTTGGGAGGCTGAGGTGGGTGGATCACC
TGAGGTGAGAAGTTCAAGACCATCCTGGCCAAGATGGTGAAACCCTGTGAGTACTAAAAA
TACAAAAATTTGCAGGGCACGGTGGTGCATGCCTGTAATCCAGCTACTTGGGAGGCGGA
GGCATTAGAATTGCTTGAACCCAGGAGGTGGAGGTGTCAGTGAGTTGAGATCGTGCCACT
GCACTCCAACCTGGGTGACAGGGTGGAGCCCTGTATTAATCAATCAATAAATAAAG

FIGURE 3RRRR



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100927 TTTGGTAGAAAATCTCAGTTTTCTGCCATTGATTTAAACTACATTTAAAAGTCCAATTAC
GTTTAGGTGGTTATTGAGAAATGAAAATTGTATAAGCTAACAAAGCTTGGGGTTGTGAA
TTTTTAGTTCTCATGGGGGAAGGTTTATGTATTTCTTCTGCTCAATGAGTGTTAAGCCCT
TCTCTTGATCTGTATGTTTTCTCTCAGCTCTTGGGAAGAGAGGATTTACGGTGGAGTAA
AAATAAAATCTAAAGTTGGCTTTCTGCCGGGCATGGTGGCTCACACCTGTAATCCTAGCA
[G, C]
TTTGGGAGGCTGAGGTGGGTGGATCACCTGAGGTCAGAAGTTCAAGACCATCCTGGCCAA
GATGGTGAAACCCGTGT CAGTACTAAAAATACAAAAATTTGCAGGGCACGGTGGTGATGC
CTGTAATCCCAGTCACTTGGGAGGCGGAGGCATTAGAATTGCTTGAACCCAGGAGGTGGA
GGTTGCAGTGAGTTGAGATCGTGCCACTGCCTCCAACTGGGTGACAGGGTGAGCCCT
GTATTAATCAATCAATAAATAAAGTAAATATAAAGTTGGTCTTCAAGATGCCTGAA

102805 AAAATGAACAGGATTACATAATTGTTTTGAGCTAATTATCCTTGAATACAAGGATCAATA
ACAAGGGTGATGCCAGTCCAAGGTTGGACAGTCAGTTGCTGGGTAGATGTCTTCGCAGAA
ATGCTTTTCTGCATAACGAGGTGATGGGTTTTGTGCAAGGTTGTAGTTTTTGCAGTCTTT
TATGATAGCTCTTGAATCAGGCATTGTGTCATGAGAATCCTTCCTTCTGGCTTTCCCT
GACTCTGTTTGTGAGAGTTTTAAGCACAAGTAACCCATTTTGATTCTGACAATTTTCAT
[G, A]
CTCCCAACACTCATTAAACAATGGGTTAAGAATTTGAACCCCTTATCTCACATAGCAAGAAG
CCTGGAGGTACGTTGACTCAGGCTTGTGCTATCAGCTCCACAATGT CAGGTGTATCCAGA
TTTGTACCTCTTCTGCTCTGTTTTCTTGGCATGGTAGCTCTTCATCCTCAGACTTGT
CACTCATTGCAAGATGGCTGCTTCATGACCAAATAGCACGTTTTCACCCAACCTCATA
TCAGGAAATACAAAAGGAACCTCCCTTAAATTTATCTTTTTTTAGAGCAGTTGCATATTC

103462 CATGTGCAGTCTCCCTCATTATCAACATCCCGCACCAGACTGGTACATTTGTTACAATTT
ATGAACCTACATTGATGCATCATTATCACCTAGAGTCCATAGTTTACATTAGGGTTCCT
CTTGGTGTGTGAGTCTATGAATTTGGACAAATTTATAATGACATGCGTCTACCATTAT
AGTATCATACATAGTATTTCACTCTCCTAAAAATCCTCTGTACCCTGCTTGTTCATCAAT
CCCGTTCTCCTAACCTTTGACAATGACTCATGTTTTTATTAGTTTTGTCTTTTCCAGAAT
[G, T]
TCATTAATATGGTTTGGCTGTGTCCCAACCAATCTCAACTTATATCTCCAGAATTCC
CATGTGTTGTGGGAGGGACCCAGGGGAGGTAGTTGAATCATGGGGGCCAGTCTTTCCCTG
TGCTATTCTCATGATAGTGAATAAGCCTCACGAGATTTGATAGGCTTATCAGGGGTTTCT
GCTTTTGCTTCTTCTCATTTTTTCTTGTCTGCCACCATGTAAGAAATACCTTTCACCTC
CCACCATGACTCTGAGGCCTCCCAAGCCATGTGGAAGTGAAGTCCAATTAAGCCTCTTT

103811 TCCCAGAATTTCCCATGTGTTGTGGGAGGGACCCAGGGGAGGTAGTTGAATCATGGGGG
CAGTCTTTTCTGTGCTATTCTCATGATAGTGAATAAGCCTCACGAGATTTGATAGGCTTA
TCAGGGGTTTTCTGCTTTTGTCTTCTTCTCATTTTTTCTTCTGCTGCCACCATGTAAGAAAT
ACCTTTCACCTCCCAACCATGACTCTGAGGCCTCCCAAGCCATGTGGAAGTGAAGTCCAA
TTAAGCCTCTTTTGTTCAGTTTCAGATATGTCTTTATCAGCAGCGTGAAAACGGACT
[G, A, T]
ATACAGTTGTGTAGTTGGAATCATACTGTATGTAGCCTTTTCAGACTGGCTTATTTCACT
TAAATATGGATAAAAGTTTCTCTATGTCTTTTCATGGCTTGTAGTCCATTTCTGCTGGG
TGGTGAATAATATCCATTTTCTGGGTGTACCATAGTTTATGTATCCATTACCTACTGA
AGGACATCTGTTTGTCTTAAGTTTGGTAATTACGAATAAAGCTGATATAAACCTCTG
TGCACAGGTTTTTGGTTGAACATTAGTTTTCAACTCCTTTAGTTAAATACAAAGATGTG

105461 CCTGTGCCATTTGTTGAAAAGACCTTTTTTTTTTTTCTCCATGTTGTGCGCTTTGCTCCT
TTGTCAAAGGTAAGTTGACTATATTTATGTGGTTCTATTTTGGGCTCTCTATTCTAGTTC
ATTGACCTATTTGTCTATTCTTTCTCCAATATCATACTGTCTTGATTACTTTGCTCTAT
AGTAATTGAACGGA
GTCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCACGATCTCGGCTCACTGCAAGCTCC
[G, C]
CCTCCCGGGTTACGCCATTCTCTGCTCAGCCTCCCAAGTAGCTGGGACTACAGGCGC
CCGCCACTACGCCCGGCTAATTTTTTGTATTTTAGTAGAGACGGGGTTTACCGTTTTTA
GCCGGGATGGTCTCGATCTTCTGACCTCGTGATCCGCCCCGCTCGGCCTCCCAAAGTGCT
GGGATTACAGGCGTGAGCCACCGCCCCGCGCCACGCTCTATAGTAATTCTTAAAGCCAGT
TAGTGTCACTCCTCAATTTTTTTCTTCTTTTCAATATTGTGTTGACATCAGCTCCTTT

FIGURE 3SSSS



105981 ATAGTAATTCTTAAAGCCAGTTAGTGTCTAGTCCTCCAATTTTTTCTTCTTTTCAATAT
TGTGTTGACATCAGCTCCTTTTATGGAAGAAAAATCTTTCCAGAGTTACCCTGTAGAT
TTCCCTTCTGTCTCATTGACCAGAAATGAGATCACATTAGCATCTGCAAGGGAGGATAGG
AAAGGAAGTATCGGACAAAGGACGATAGTATTGCCATAATGGACCAGTGATTCTCAAAGT
TTGGTCCCTCAACCTTAGGCATCAGTATCCCTTGACCATCGGCATCGGCATCCACTGGA
[A, G]
ACTTGTTAGAAATGAAAATTATTTGTGGTCTGTTGGGGCGGTGGGGCTGGAGCTCAGC
AATCTGTGTTTACCAAGCTGTCCAAGTGATTCCAATGCTTAAGGAGCAGAGGAATCATGT
TTTCATCTCTTGGGGCTGAACACATTGCTGTGATGAACAAAATTAGAATTCTGTTAGCGAA
GAAGTTGGAGTAAGCAAATGATAACGTCTCACATAGATGTCAATTAAGTCTAGCCACTG
AGATCACTCATAGAGAAGATGTCTTCACTCTTCTTGTCTATAAATTAGGTGGCTGTTGGG

106495 TAGATGTCAATTAACTGCTAGCCACTGAGATCACTCATAGAGAAGATGTCTTCACTCTTC
CTTGTCTATAAATTAGGTGGCTGTTGGGATCCTTGAATCAATCAAGATAAGCTAGCCTATC
ACAAACAGCCTACTCCCACTCCTGCCAGATCTGCTGCAACCCAGGCAGCTTCTCAGGCTC
AGGGGCTAGATAGGGTGGGGGAAACAGCTGAGCGCTGCTTGTCTGGCTCTTCAGAGCGTTG
TCCCTCAGGTAGAGCCCATTGGCCCGAGCTAGTTACCAGGTCCCATTCGTAGCTGCAAG
[G, T]
GGGTTTGAATGCATTCTTTTATCTCCAAGAATAGTAGTGGATGGTAAAATTGTTGCGCA
CTGGTATAGTCATGTTTCATATGCTCTAAGATGCACTCCTGGGTCCCACTCTAGGGTGACC
AGCCTTTCAGGAATTTAGTTCCAGGTGCTTTGTGTCATCACTCTTCGGGGGAATACTACT
ATTGTGAGACTCATAGATTTTACACCTGAGAAAATGGAGCCTGTGAGGTGACTTGCTGG
ATCCACACAGTGAATTGGTGGTAGGACCTGGATTAGAACCATAATCCTGCCTTAACCTC

107077 CTAATCCTGCCTTAACCTCTTCCAGATGGGCTGAAAAATTAATGTCTAGATTAATCTACA
CCATGAAACCAATGTGGAGTTTAGAATATTTTAGTATACCATATAATTAAGTAAAAAT
AATCTTCTCTGAGTTCCAGGGAAATATCTGGGCAGTTAGCATCCCAAATATCTGCTTAT
TTGGGATGAAGGAGGGCTGACATTGGATTCTTGAAGCAGGTTTTTGAAGCAGGCGCCTCT
TTCTCCCTGCTGTGGGGTAGCTGTCTTGTCTGGGCCAGGCTGATTATCACTTGATAGGAT
[G, A]
CTGTAGGAAAACCAAGTCAAATCTGGACTGATTCTCATTTTCTTGGCTCCAAGCTGGACT
TTGGCCTCTGGTAGGAAGTACCTGCTTCTTTTTTCCGGCTCGGATCAGCAGGCTTCTG
GTATTTCTGTAAACCAAGGGACACCTTTTTTTTTTTTTCTTTTTCTTTTTTGGCTTT
CCCCCGCCCCAAGGATATGGCAGAAATGTTTATTGTCTTATGGATCCAAATGATTCTGG
GTGTCACTGACAAATAATAAAACATTACCCTAGACTTACGAGTGCCAAAATTACTTGGAA

107431 CTGGACTTTGGCCTCTGGTAGGAAGTACCTGCTTCTTTTTTCCGGCTCGGATCAGCAGG
CTTTCTGGTATTTCTGTAAAACCAAGGGACACCTTTTTTTTTTTTTCTTTTTCTTTTTT
TGGCTTTCCCCCGCCCCAAGGATATGGCAGAAATGTTTATTGCTTATGGATCCAAATG
ATTCTGGGTGTCACTGACAAATAATAAAACATTACCCTAGACTTACGAGTGCCAAAATTA
CTTGGAAAATTTAGAACAGGCCACATGTTTAAAGATGGAAGTGATGACAATCTCAAAGTGC
[T, G]
AATACGGTTAAATTAGTGGACTGATCAACCACTTTAGATTCCAGGAAGGGGCATGTGGCG
GAAGCCAAAGACTCCTGCAGGCCTCTGCCATGTGCCTGGCATGGATCAAGGAGAGGCTTT
TAAGAACACAATTGGCAGGAAGCTTCTGTTTCTCCAAGGCATCTTTGAGCTAGCATTC
GCAGCAAAGGGTTAACTTAAATAAATACTATTTCAAGAGGCAGGCGCAGTGGTCCACA
TCTGTAATCACAGCTCTTTGGGAGGCCAAGACAGAAGGATTACTTGAGCCCGGAGTTCA

107671 CTTGGAATTTAGAACAGGCCACATGTTTAAAGATGGAAGTGATGACAATCTCAAAGTGC
TAATACGGTTAAATTAGTGGACTGATCAACCACTTTAGATTCCAGGAAGGGGCATGTGGC
GGAAGCCAAAGACTCCTGCAGGCCTCTGCCATGTGCCTGGCATGGATCAAGGAGAGGCTT
TTAAGAACACAATTGGCAGGAAGCTTCTGTTTCTCCAAGGCATCTTTGAGCTAGCATTC
AGCAGCAAAGGGTTAACTTAAATAAATACTATTTCAAGAGGCAGGCGCAGTGGTCCAC
[A, G]
TCTGTAATCACAGCTCTTTGGGAGGCCAAGACAGAAGGATTACTTGAGCCCGGAGTTCA
AGACCAGCCTGGGCAACATAGTGAGACCCATCTCTGAAAAAAAAGAAAATCGAGCCC
GGGCGTGGTGGCTCATGCTGTAATCCAGCACTTTGGGAGGCAGAGGCAGGCAGATCAC
TTGAGGTGAGCAGTTTGAAGACAGCCTGGCCAACATGATGAAACCTGTTCTTACTAAAA
ATACAAAATTAGCCTGGCATGGTGGTGTGTGCTTATAGTTCTAGCTACTCGGGAGGCTG

FIGURE 3TTTT



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

108826 CCATATGTCTCTGGAGTATCTGCTTCTATGTGTCATGCCTGCCCTAGTACATACCATATTAT
AAGTTCCCTAACAACTAACTCAGTAGGATTAATGTTACATAATAATGTGAGTTTATTTATT
TATTTATTGAGACGGAGTCTCACTCTGTTGCCAGGCTGGAGGGCAGTAGCATGATCTCG
CCTCACTGCAACCTCCGCCTCTTGGGTTCAAGCGACTCTCCTGCCTCAGCCTCCTGAGTA
GCTGCGGCTACAGGCGCGTGCCACCATGCCTGGCTAATTTTTGTATATTTTAGTAGAGA
[C, T]
GAGGTTTCACCATATTGGCCAGGCTGGTCTCGAACTCCTTACCTCGTGATCTGCCACCT
TGGCTTCCCAAACCTGCCGGGATTACAGGCATGAGCCACCACGCCCTGCCGTGAGTTTATT
TTTATCAGAGAGAAGGCCCTGGTTTAAATGTAAACAATTGCTTTCTTCTTTTCTAGGC
GGCAAGAAGGTAGGAAGTAATTATTTGAAAATGCAAATAATTTAAAGCTTTATCAATCA
AGTCTGTTCCAAATTAGTTTAAGGATTTTCTGTAGCTTTAATGATAGGGCCAGAATGTAC

111310 TAAAAGGATTTTAGTTTTCTGACTTCATGCTCTCTCTCAGTGTGTTGAATTGCATCATAG
CCTCTGGTTCTTTATGTATCTGCTTTAGTTCCCTAATACCAGCTCATTATTAGTTAATAT
CTCTTTCTTTGTGTTCTCTTTTCTGGAGGTTAATCTAAGATTTAGGTGTCCCTTGCTC
ATGTCTGCTGCTATGTGACTAATACAAAGATGGGTTTATATTCTGGTATCACTATAGGAC
ATTTAAAGTAATGTCAAAAACCACAATTACTTTTGTACCAACCTAATAAAAGAGGGGCTT
[T, A]
TACTGTACCAATAGCTGACTTGTTTTGACCCACCTCTGCGAGAGCAGTTGCCAGGCAAAG
ATAGTCCCCACTCTGTTCTTCCATCCACTGCTCTACTTTGTACAACCTGCTTAATGTTAA
AAACAGGAGGAAATGCACAGCTCAAAGCCAAGCCTCTTGGTGCCCTGAGATAGCTGGCCT
TGCTCTCCAAAGCATTTCTTTTCTGGGCTCATCAGAATGCCTCAATGCTCTGCTTCG
ATGGTTTTAAGAGCATAGAGTGGCTTGGTGTGGTGACTCAAGCCTGTAATCCCAGCACTT

112035 CCCAGCTACTTGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGCGGAGGTTGCA
GTGAGCCAAGATCACACCACTGCACTCCAGCCTGGGCAACACGAGTGAAACTCTGTCTCA
GTAATAATAATAATAATAATAATAATAATAATAATAATAATAAAAGTAAAAATAAAAG
AGCATAGAGTTTGAGACCATCACCAAGATTTAATTCCCACTGGGGATTAACTCAG
TCCTAAACTCAAGGCTGCTATGTCAAGTAGTATTAAATATCTCTTCTTTAAGAGCCA
[T, -]
TTAGCTCTTCTCATATCTTTCAGATTTTGCTGGTTTTCCCTAAGGCTTCTGAACTCT
TAAACATCTCTGATAGAGGAACTATCTAGAAAATTTTATGGGTATTCATTATCAGTGA
GGTCTTCTCATTGAAGAGATAATCACTTCTTAGAATCCAGGGGTTTCATTAAGTATTA
ATAAAAGGTTTTATATTTTGCATTTTGGGGCTAGTGAAAGTCTAGTGATGCTTTAGGTC
TACAACATGGTAACTGTATTTAAAGATTCCAGGTGCTTTTGAGTTATGAATTTAATGCA

112038 AGCTACTTGGGAGGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGCGGAGGTTGCAGTG
AGCCAAGATCACACCACTGCACTCCAGCCTGGGCAACACGAGTGAAACTCTGTCTCAGTA
ATAATAATAATAATAATAATAATAATAATAATAATAATAAAAGTAAAAATAAAAGAGC
ATAGAGTTTGAGACCATCACCAAGATTTAATTCCCACTGGGGATTAACTCAGTCC
TAAACTCAAGGCTGCTATGTCAAGTAGTATTAAATATCTCTTCTTTAAGAGCCATTT
[T, -, A]
GCTCTTCTCATATCTTTCAGATTTTGCTGGTTTTCCCTAAGGCTTCTGAACTCTTAA
AACATCTCTGATAGAGGAACTATCTAGAAAATTTTATGGGTATTCATTATCAGTGAGGT
CTTCTCATTGAAGAGATAATCACTTCTTAGAATCCAGGGGTTTCATTAAGTATTAATA
AAAGGTTTTATATTTTGCATTTTGGGGCTAGTGAAAGTCTAGTGATGCTTTAGGCTAC
AACATGGTAACTGTATTTAAAGATTCCAGGTGCTTTTGAGTTATGAATTTAATGCAAGA

112066 TCACCTGAACCTGGGAGGCGGAGGTTGCAGTGAGCCAAGATCACACCACTGCACTCCAGC
CTGGGCAACACGAGTGAAACTCTGTCTCAGTAATAATAATAATAATAATAATAATAATA
TAATAATAATAATAAAAGTAAAAATAAAAGAGCATAGAGTTTGAGACCATCACCAAGGA
TTTTAATTCCCACTGGGGATTAACTCAGTCTTAACTCAAGGCTGCTATGTCAAGTAG
TATTAATATCTCTTCTTTAAGAGCCATTTAGCTCTTCTCATATCTTTCAGATTTT
[G, T]
CTGGTTTTCCCTAAGGCTTCTGAACTCTTAAACATCTCTGATAGAGGAACTATCTAG
AAAATTTTATGGGTATTCATTATCAGTGAGGTCTTCTCATTGAAGAGATAATCACTTCT
TAGAATCCAGGGGTTTCATTAAGTATTAATAAAAGGTTTTATATTTTGCATTTTGGGG
CTAGTGAAAGTCTAGTGATGCTTTAGGTCTACAACATGGTAACTGTATTTAAAGATTCC
AGGTGCTTTTGAGTTATGAATTTAATGCAAGAATCTATTAGCAATCACATTTTACTAG

FIGURE 3UUUU



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Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

114098 AAGTTGAGATCACTGGTCTTTCAAGTTAGCATCAATTTCCATGACATTCTGGGCTTTCTT
TTTTCTGTGGATTAAACATTTTCATCCTGGCCATAGTCATTGTTACAAAGATTTTTTTT
TTTTTTTTTGAGATGAAGTCTAGCTCTGTTGCCAGGCTTGACTGCAATGGCACAGATCTC
GGCTCACTGCAACCTCTGCCTCTCAGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCAAGT
AGCTGGGATTACAGGCACCTGCCACTGCCCTGGCTAATTTTTGTATTTTAGTAGAGACG
[G, A]
GGTTTCACCATTTTGTCCAGGCTGGTCTCAAACCTCTGGACCTCATGATCCACCTGCCTC
GGCTCCCAAAGCACTGGGATTACAGCCGTGAGCCACCGCGCTGGCCAGAAGTTTTCTT
TTCTCTAAGTTACTCCCAGGAGTTGGTAGGATACTTTAGAGCCTGCTTCAAGATTTCT
TTATGCCTTTTTTAATTGTGTTAAAGTGTGCACAACATAAAATTTACCATCCTGTTTT
AAGTGACAGTTCACTGGCATTAAAGTACATTACATTGTTGTGCAACCATCACTACCATC

114293 CTGCCTCTCAGGTTCAAGCAATTCTCCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGG
CACCTGCCACTGCCCTGGCTAATTTTTGTATTTTAGTAGAGACGGGGTTTACCATT
GTCCAGGCTGGTCTCAAACCTCTGGACCTCATGATCCACCTGCCTCGGCCTCCCAAAGCA
CTGGGATTACAGCCGTGAGCCACCGCGCTGGCCAGAAGTTTTCTTTCTCTAAGTTAC
TCCCAGGAGTTGGTAGGATACTTTAGAGCCTGCTTCAAGATTTCTTTATGCCTTTTTT
[A, -]
ATTGTGTTAAAGTGTGCACAACATAAAATTTACCATCCTGTTTTAAGTGACAGTTTCA
TGGCATTAAAGTACATTACATTGTTGTGCAACCATCACTACCATCATCTCCAGAACTTT
CCATCTTCCCAAATGACAACCTCTGAGTCTGTTCAATAATAACTGCTCATTTCTCTCCCC
CAGCTCCCTGGTGACCACCATTTCTACTTTCTGTGTCTATGAATTTCACTACTCCGGAAC
CTCATGTCAATGGAGTCATATAGTGTGTCCTTTTGTGTCTGGCCTATTTCACTTAGCA
CTCATGTCAATGGAGTCATATAGTGTGTCCTTTTGTGTCTGGCCTATTTCACTTAGCA

114413 GTCCAGGCTGGTCTCAAACCTCTGGACCTCATGATCCACCTGCCTCGGCCTCCCAAAGCA
CTGGGATTACAGCCGTGAGCCACCGCGCTGGCCAGAAGTTTTCTTTCTCTAAGTTAC
TCCCAGGAGTTGGTAGGATACTTTAGAGCCTGCTTCAAGATTTCTTTATGCCTTTTTT
AATTGTGTTAAAGTGTGCACAACATAAAATTTACCATCCTGTTTTAAGTGACAGTTCA
GTGGCATTAAAGTACATTACATTGTTGTGCAACCATCACTACCATCATCTCCAGAACTTT
[-, C, T]
CCATCTTCCCAAATGACAACCTCTGAGTCTGTTCAATAATAACTGCTCATTTCTCTCCCC
CAGCTCCCTGGTGACCACCATTTCTACTTTCTGTGTCTATGAATTTCACTACTCCGGAAC
CTCATGTCAATGGAGTCATATAGTGTGTCCTTTTGTGTCTGGCCTATTTCACTTAGCA
CAGTGTCTTTAAGGCTTCATGAATATTGCACATGTGTGAGAATTTCTTCTTTCAAGGC
TGAGTAATATCCCCCTGTCTGTATATACCACATTTTGCCCTATTTGTTATCTGTTGATGG

114414 TCCAGGCTGGTCTCAAACCTCTGGACCTCATGATCCACCTGCCTCGGCCTCCCAAAGCAC
TGGGATTACAGCCGTGAGCCACCGCGCTGGCCAGAAGTTTTCTTTCTCTAAGTTACT
CCCAGGAGTTGGTAGGATACTTTAGAGCCTGCTTCAAGATTTCTTTATGCCTTTTTTTA
ATTGTGTTAAAGTGTGCACAACATAAAATTTACCATCCTGTTTTAAGTGACAGTTTCA
TGGCATTAAAGTACATTACATTGTTGTGCAACCATCACTACCATCATCTCCAGAACTTT
[-, C]
CATCTTCCCAAATGACAACCTCTGAGTCTGTTCAATAATAACTGCTCATTTCTCTCCCC
AGCTCCCTGGTGACCACCATTTCTACTTTCTGTGTCTATGAATTTCACTACTCCGGAAC
TCATGTCAATGGAGTCATATAGTGTGTCCTTTTGTGTCTGGCCTATTTCACTTAGCAC
AGTGTCTTTAAGGCTTCATGAATATTGCACATGTGTGAGAATTTCTTCTTTCAAGGCT
GAGTAATATCCCCCTGTCTGTATATACCACATTTTGCCCTATTTGTTATCTGTTGATGGA

114692 TACCATCATCTCCAGAACTTTTCCATCTTCCCAAATGACAACCTCTGAGTCTGTTCAATAA
TAACTGCTCATTTCTCTCCCCAGCTCCCTGGTGACCACCATTTCTACTTTCTGTGTCTA
TGAATTTCACTACTCCGGAACCTCATGTCAATGGAGTCATATAGTGTGTCCTTTTGT
GTCTGGCCTATTTCACTTAGCACAGTGTCTTTAAGGCTTCATGAATATTGCACATGTGT
AGAATTTCTTCTTTTCAAGGCTGAGTAATATCCCCCTGTCTGTATATACCACATTTTGC
[C, T]
TATTGTGTTTATCTGTTGATGGACTTTTGGGCTGTTTCCACTTTTTGGTTGTTATGAATAA
TGCTGCTATGAACATGGGTGTATAAACATCTATTCAAGTCCCTGTTTTTAATTATTTTGG
ACATATACCCAGCAGTGAATTTGCTGAGTCACATATAATTACAGATTTAATTTTTCTGAG
GAACCGTGACACTGTTTTCTACAGTGGCTGCACCATTTTCACTTCCCAACAAATGCCCC
AGGGATTCTGTCTTTCCACTTCTCACCACACTTGTCTTTTTTCTGTTTTTTTTTTTTT

FIGURE 3VVV



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

115696 GGTCAACTTGATAAAACAATTATCGAATAACACTTTTGTGTGTGTTCTCAACACTATAG
GGATATGTGGCAATAAAACAAGGGATAGTCCTTTCTCTTAAGGAGAAAACAGCCATGCATC
AAGACCAGTGTCCATAATATTGTGCAGAATGATACCAGGGCTAGGGCAGGCAGGCTCTGA
AGTCACACCACCTGGGTGAATGATCCATGCTATGTCTACTTCTTATCAGCTATGTGACC
TCAGGCTGTGCCTCAGTTTTCTTATTTGAAAAAATGAGGATAAATAGGTTCTCTGTCTG
[A, T]
TTGGCACTTAGTTGACACTTGAGAGCAGTGTCTGCCACATAGCCTCAATCAATGCTATTCT
ACTATTATTGTAGAACACTGTTAGCTATGGGAGCCAGAGAGGGACTTGTAAAGTCTAGC
TTGTATATTTTACATCACACAAGCACCTGCCTTGTCTTGCCAATGGATTGTTCTGCTCAA
GTAAAGCATAGGGGCTTAAAGCTAAATGTTACTGTGCCTTTATTGGCCTGTATCCCTGTA
GGACCTGCTCAGTGCTAAGTGCTTTGGAGGTGTTCAAGTAAATATTATTGATTGTGAATT
116153 TTGCCAATGGATTGTTCTGCTCAAGTAAAGCATAGGGGCTTAAAGCTAAATGTTACTGTG
CCTTTATTGGCCTGTATCCCTGTAGGACCTGCTCAGTGCTAAGTGCTTTGGAGGTGTTC
GTAAATATTTATTGATTGTGAATTGATTAGAGAGGAGAGAGACACGAACCAGGTCTTTT
CCAAGCACCCAGGATGTGTAAGCTTCACAAATGAAGAGATGCTTGCTGATGCTGCCCTCT
GTCCTACCTTCCCTGGAAATGGGCATGGAGGTGGGTGGGGCTGGAGAAGTGGAGGGGGCC
[A, C]
CAGAAAGGGTAGCGACAGAGAGAAAGAAACCCATGGGCAACAGGGTCTGTATCTGGGACG
GGACCTCAGCCATCAAGCATGGCCTTGGGAGGAGAAGATGCACTGGCCGCGATGCAGCGA
GCCCTTTTCAAGGCAAAACAGCACAAAGCAAGAGTGCAGACGGCAGGTTTCGTCCGGCTCCTC
TGGGGCTCCCCAGGGGATGCCGTTGCCATTCCGTCTGCGTGAAGGAGGCAGGTTGTCTT
CTTCGTCGTCCGCCACACTTCACTGGCTGCAAGTGTTACGCAGATGTGCTCATGTGATC
116213 CCTTTATTGGCCTGTATCCCTGTAGGACCTGCTCAGTGCTAAGTGCTTTGGAGGTGTTCA
GTAAATATTTATTGATTGTGAATTGATTAGAGAGGAGAGAGACACGAACCAGGTCTTTTT
CCAAGCACCCAGGATGTGTAAGCTTCACAAATGAAGAGATGCTTGCTGATGCTGCCCTCT
GTCCTACCTTCCCTGGAAATGGGCATGGAGGTGGGTGGGGCTGGAGAAGTGGAGGGGGCC
ACAGAAAGGGTAGCGACAGAGAGAAAGAAACCCATGGGCAACAGGGTCTGTATCTGGGAC
[G, A]
GGACCTCAGCCATCAAGCATGGCCTTGGGAGGAGAAGATGCACTGGCCGCGATGCAGCGA
GCCCTTTTCAAGGCAAAACAGCACAAAGCAAGAGTGCAGACGGCAGGTTTCGTCCGGCTCCTC
TGGGGCTCCCCAGGGGATGCCGTTGCCATTCCGTCTGCGTGAAGGAGGCAGGTTGTCTT
CTTCGTCGTCCGCCACACTTCACTGGCTGCAAGTGTTACGCAGATGTGCTCATGTGATC
TTACCACATACGCAGATTCTAGTAAAAAAGAAGAAAAAATCCAAGAATGAGTGAGAATT
116507 TGGGACGGGACCTCAGCCATCAAGCATGGCCTTGGGAGGAGAAGATGCACTGGCCGCGAT
GCAGCGAGCCCTTTCGAAAGGCAAAACAGCACAAAGCAAGAGTGCAGACGGCAGGTTTCGTCTG
GCTCCTCTGGGGCTCCCCAGGGGATGCCGTTGCCATTCCGTCTGCGTGAAGGAGGCAGG
TTGTCTTCTTCGTCTGCGGCCACACTTCACTGGCTGCAAGTGTTACGCAGATGTGCTCA
TGTGATCTTACCACATACGCAGATTCTAGTAAAAAAGAAGAAAAAATCCAAGAATGAGT
[G, A]
AGAATTTATTTTAGCTACATGCTGACTGCCTCTCAGCTTGCCCGTGCTCTTACCAGATCT
TGAAAAACAAGGGCCAGTTTGTATTTTATAAAAAATGCATCAAAGTGTTACTAAAAGATCC
TAAAGGAAGACTAAAGTTTCTCCGAAAAGAAGCCTGGCCCTTCAAATACCAACAAGGGA
TCCTCGGAAGATGGGTTTTACTGAGCTCAAACACTGTCTCTTCTGTTTAGATACTGTATT
ATTACATCATTTCCCTCTCAGATTGAGTGATGTTTCTCCATTATTGTTCCGTTCCCTT
116796 CAAGAATGAGTGAGAATTTATTTTAGCTACATGCTGACTGCCTCTCAGCTTGCCCGTGCT
CTTACCAGATCTTGAAAAACAAGGGCCAGTTTGTATTTTATAAAAAATGCATCAAAGTGTT
ACTAAAAGATCCTAAAGGAAGACTAAAGTTTCTCCGAAAAGAAGCCTGGCCCTTCAAAT
ACCAACAAGGGATCCTCGGAAGATGGGTTTTACTGAGCTCAAACACTGTCTCTTCTGTTT
AGATACTGTATTATTACATCATTTCCCTCTCAGATTGAGTGATGTTTCTCCATTATTT
[G, T]
TTCCGTTCTTGGCAGAAGTGAATTTCAACATGAACAAACATCTGCAGTCTTTCTATACGA
GCCTGGGGAATGCTTGAAAGAACTGATACTAAATTATTATTATTAATATTGTTTGTCTA
CCTATCCACTCCCCACCCCAAGTCCCTCTCACTCCGAGTAGTCACAAATGGGTGTAT
CGGGCATCTCGTCTCAGTTGTGAGACTGTCCCTTCTCATTCTAAACTATTTTGCAGATT
AGCTTGAGCAATTAGAATCAGGAATAGATATCATGTGGTTAAAAATAAAGGAATTTATC

FIGURE 3WWWW



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117142 AGTCTTTCTATACGAGCCTGGGGAATGCTTGAAAGAACTGATACTAAATTATTATTATTA
ATATTTGTTTGTCTACCTATCCACTCCCCACCCCAGGTCCCCTCTCACTCCCGAGTAGT
CACAAATGGGTGTATCGGGCATCTCGTCTCAGTTGTCAGGACTGTCCCTTCTCATTCTAA
ACTATTTTGCAGATTAGCTTGAGCAATTAGAATCAGGAATAGATATCATGTGGTTAAAT
AAAAGGGAATTTATCTACAATTTGAAAATAGATTACAGAGAACTTCCATGTGATTTTTTT
[T, A]
AAAAAATAAATTTTGCTGTGTACTATAACAGAGTTGGCACCAGAGCTAACAAAAAAAAG
CAAGTATCAACATTTAAAATGCAGTACATGACATGTAAATGCCATATGGTATTCTTGCAA
TGTTATTACCACTTTCTTTCTGGCATCCTTTTCTGACATTGCTGTATGCTTCTTGACTC
TGCTGCTCTTCAGAAAGCCTCAATTGTCCTGAGCCCTTTAATTCTGTATTTATATTAGGT
GTCTCTCTCTTTTATCTACCCTTTGGAGGCTTATCAACCTTTTCCCAAGGAAGAGGAAG

118270 GCAAATAACATCTTG TAGACCCCAAGAATAACATTCATCTCACTGTATTGATGGTGGGCA
TCCCCATCAGCCTATGAGTTGTGTGAGGTCGGGTCCCCTCTGCCTGTTCACTGATCATC
TTCAGGTGCTAGCACATGGCCTGGAACCCAGAGAGCACTTAATCCATACTTGATGAATCA
ATGAATGAACATTGCTAGACATAACCTTATACATCTTGATATAGAAAATGACCTTGAAGC
TGGACTAGGTCCCAGTTACTTGAGAGGCTGAGGCTGGAGGATCAGCCCAGCTTGGGCAGC
[G, C, A]
TAGTGAGACATCCCCTATCCCTCCTACTCTCCTAATCCTGCACAATCCCCCTCTAAAAAA
AGATAAACAGAGTGACCTTGGGCTGGCGCTGTGGCTCGCGCTGTAATCCCAGCACTTTG
GGAGGCTGAGGCGGGCGGATCATGAGGTGAGGATCGAGACCATCTGGCTAACATGGT
GAAACCCCGTCTCCTCTAAAAAATACAAGAAAATTAGCCGGGCGGATGGCGGGCCCTG
TAGTCCCAGCTGCTCGGGAGGCTGAGGCAGGAGAATGGCGTGAACCTGGGAGGCGGAGCT

118495 AAATGACCTTGAAGCTGGACTAGGTCCCAGTTACTTGAGAGGCTGAGGCTGGAGGATCAG
CCCAGCTTGGGCAGCATAGTGAGACATCCCCTATCCCTCCTACTCTCCTAATCCTGCACA
ATCCCCCTCTAAAAAAGATAAACAGAGTGACCTTGGGCTGGCGCTGTGGCTCGCGCCTG
TAATCCCAGCACTTTGGGAGGCTGAGGCGGGCGGATCATGAGGTGAGGATCGAGACCA
TCTTGGCTAACATGGTGAAACCCCGTCTCCTCTAAAAAATACAAGAAAATTAGCCGGGCG
[C, T]
GATGGCGGGCCCTGTAGTCCCAGCTGCTCGGGAGGCTGAGGCAGGAGAATGGCGTGAAC
CTGGGAGGCGGAGCTTGCAAGTGAGCCGAAATTGCACCACTGCCTCCGGCCTGGGCGACA
AAGTGAGAATCTGTCTCAGAAAAAAGAGAGTGACCTTGAATCGAA
ACTAGTATTGTATGCAAATAAATGGCAATGGGGAAAAAAGTTCTTAGGCTTTGAAGTCC
AATTATTTTGAATAAAAGATGGGTCTGTAGGGAGCTGCTCCCTGCTAATGCTTATTGCCA

119314 AGATAATTCTGAAAAATTCAATGCAAATTTCTAGCTATAATATAAAGGAGAAATAAATG
GAAAGTAATGTTTCAATAATAGGTGCTCTGTTATGAAACCCTAGGAGACCTGCTGAAGCA
GTGAGTCTTGGCATCTATACGTAGAATGCAATATCTCCAAATGCAGATTGGTTTCAGGTAT
GTTGTGTTGATGACTAAGATGTCACAAAGGACTTTTCTCAGTGGTGTGGTTTTCCAAA
ATAGAGAACAACCTCTCAGCAAGTTCCAGCTAATCTATTTACATTAGAGTCAGATTCTTA
[A, T]
AAAAATTTGGTCAACTTTGAAAAGATGCAAACAATTTGTGTGTGTCTTCACATGTAATA
GGGAGTTAGGTTCTTGGCTCAGATAATTGTAGACATGAGTTTTTCTCAGTGGGACATTCA
AAGCTCATGCTAAATGTGGGATGGTTCTGTGATTTGTGGCACTGATTGTTGTATTGCAGG
ACATCTGAACGCTTTGACCTCCTCCAGTACATGCCAAACGTGCCCTCCAGTTGTGAC
AACCAGAAACACCTAACAAGTTTAGAGACCACCTCCTAGGGTGTGTAATCTAAACAGG

119740 CATGCTAAATGTGGGATGGTTCTGTGATTTGTGGCACTGATTGTTGTATTGCAGGACATC
TGAACGCTTTTGACCTCCTCCAGTACATGCCAAACGTGCCCTCCAGTTGTGACAACCG
CAACACCCTAACAAGTTTAGAGACCACCTCCTAGGGTGTGTAATCTAAACAGGGTTAT
AAACAGAGCTTCCAGGGGGCTCCCATGTAACCTTTCAAGAATTTACATATTTAATTCTAT
TCTCGTGAAAATGGCCATGTTCCAATAGTTAAGCCTCTTCCCTTGATGTATTTCCCATGC
[T, C]
ATTAATATTCAGTTCTATTCCACAAATATTTATTATATGCATATGTGTGTGTACATCCAT
CTGACTATACCTTTCTATGTTATGTACCTTTACTAGAATTCCAAATTATAAAATCCTGTC
AGTTTATCTCTTGCTAGATGAATGGTTTTATTGTTTTGTAGAATATTTGCTTTAAACAG
TACTCTCATATTTCTTGAGGTGCTAAAAATAGAGGAGGCAGCTGTAGAAAAATGCACTAC
GGGCCAGGCGTGGTGGCTTATGCCTATAATCCAGTACTTTGTGAGGCCAATGTGGGCGG

FIGURE 3XXXX



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119899

TTGTAATCTAAACAGGGTTATAAACAGAGCTTCCAGGGGGCTCCCATGTAACTTTCAAGA
ATTTACATATTTAATTTCTATTCTCGTGAAAATGGCCATGTTCCAATAGTTAAGCCTCTT
CCCTTGATGTATTCCCATGCCATTAATATTCAAGTTCTATTCCACAAATATTTATTATAT
GCATATGTGTGTACATCCATCTGACTATACCTTTCTATGTTATGTACCTTTACTAGAA
TTCCAAATTATAAAATCCTGTCAAGTTTATCTCTTGCTAGATGAATGGTTTTATTGTTTT
[G, A]
TAGAATATTTGCTTTAAACAGTACTCTCATATTTTCTTGAGGTGCTAAAATAGAGGAGGC
AGCTGTAGAAAAATGCACTACGGGCCAGGCGTGGTGGCTTATGCCTATAATCCCAGTACT
TTGTGAGGCCAATGTGGGCGGATCATGAGGTCAAGAGATTGAGACCATCTGGCCAACAT
AGTGAAACTCCATCTTACTAAAAATACAAAAATTAGCTGGGCATGGTGGTGCATGCCTGT
AGTCCCAGCTACTCGGGAGGCTGAGGCAGAAGAATCACTTGAACCCGGGAGGCAGAGGTT

119990

ATGGCCATGTTCCAATAGTTAAGCCTCTTCCCTTGATGTATTTCCCATGCCATTAATATT
CAGTTCTATTTCCACAAATATTTATTATATGCATATGTGTGTACATCCATCTGACTATA
CCTTTCTATGTTATGTACCTTTACTAGAAATCCAAATTATAAAATCCTGTCAAGTTTATCT
CTTGCTAGATGAATGGTTTTATTGTTTTTGTAGAATATTTGCTTTAAACAGTACTCTCAT
ATTTTCTTGAGGTGCTAAAATAGAGGAGGCAGCTGTAGAAAAATGCACTACGGGCCAGGC
[G, A]
TGGTGGCTTATGCCTATAATCCCAGTACTTTGTGAGGCCAATGTGGGCGGATCATGAGGT
CAAGAGATTGAGACCATCTGGCCAACATAGTGAAACTCCATCTTACTAAAAATACAAAA
ATTAGCTGGGCATGGTGGTGCATGCCTGTAGTCCAGTACTCGGGAGGCTGAGGCAGAA
GAATCACTTGAACCCGGGAGGCAGAGGTTGCAGTGAGCCGAGGTACGCCATTGCACTCC
AGCCTGGGTGACAGAGTAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAGAAAAGAAAA

120169

TCTTGCTAGATGAATGGTTTTATTGTTTTTGTAGAATATTTGCTTTAAACAGTACTCTCA
TATTTTCTTGAGGTGCTAAAATAGAGGAGGCAGCTGTAGAAAAATGCACTACGGGCCAGG
CGTGGTGGCTTATGCCTATAATCCCAGTACTTTGTGAGGCCAATGTGGGCGGATCATGAG
GTCAAGAGATTGAGACCATCTGGCCAACATAGTGAAACTCCATCTTACTAAAAATACAA
AAATTAGCTGGGCATGGTGGTGCATGCCTGTAGTCCAGTACTCGGGAGGCTGAGGCAG
[A, G]
AGAACTCACTTGAACCCGGGAGGCAGAGGTTGCAGTGAGCCGAGGTACGCCATTGCACTC
CAGCCTGGGTGACAGAGTAAGACTCCATCTCAAAAAAAAAAAAAAAAAAAGAAAAGAAA
AGAAAAGAAAAATGCACTGTGCCAGGCACCTAGAACATTGAGATGAAGGAGCACACTGTG
TAGTAGGGAGACATGGATGGATGGACAGACAGTGTATGCAGTTGAGCAGTTCTATGGA
CAGGGGACCATGCAAGGGTGAAGGAACATGGACAGCAGAGAGCAAGAACTGGAGAGGGCT

120519

CCATTGCACTCCAGCCTGGGTGACAGAGTAAGACTCCATCTCAAAAAAAAAAAAAAAAAA
AAGAAAAGAAAAGAAAAGAAAATGCACTGTGCCAGGCACCTAGAACATTGAGATGAAGG
AGCACACTGTGTAGTAGGGAGACACATGGATGGATGGACAGACAGTGTATGCAGTTGAGC
AGTTCTATGGACAGGGGACCATGCAAGGGTGAAGGAACATGGACAGCAGAGAGCAAGAAC
TGGAGAGGGCTTCTGCAAGAGGTAATGTGCAAAATGTGTGTGAGGAATGAACAGGAGTC
[C, T]
GACAAGCATTAAAAAGGGCGAAGAACCTTATCCTAGCAGATGGAACAGCCCTTAAAAGGG
CACAGAAGCTAAAAAGAAATGAGCTATGAAGCCATGAGAAGATGTAGAGGAATGCTAAAT
GCATATTGCTGCGTGAAGAAGCCAATCTGAAAAGGCTACATGCAGTATGATTCCAACATA
CATGACATTCTAGAAAAGTCTAAACTATGGAGACAGTTACAAAGATCCATGATTGCCAAG
AGCCTGGGGGAAGAGAGGGATGAATCGGTGGAGCAGAGAGGATTTTATAGGCTAGGGAAAC

120812

AGGAGTCCGACAAGCATTAAAAAGGGCGAAGAACCTTATCCTAGCAGATGGAACAGCCCT
TAAAAGGGCACAGAAGCTAAAAAGAAATGAGCTATGAAGCCATGAGAAGATGTAGAGGAA
TGCTAAATGCATATTGCTGCGTGAAGAAGCCAATCTGAAAAGGCTACATGCAGTATGAT
TCCAACATACATGACATTCTAGAAAAGTCTAAACTATGGAGACAGTTACAAAGATCCATGA
TTGCCAAGAGCCTGGGGGAAGAGAGGGATGAATCGGTGGAGCAGAGAGGATTTTATAGGCT
[A, G]
GGGAAACTATTGTGTATGATACTATAATGGTGGATACATGTCTCAGACGTTTGTCCAAA
CCCATAGGATGTACAGCACCAACAGTGAACCTAATGTATACTATGGATTCTGGATGATA
TTGTCAGTATAGGCTCATCACTTGTAAACAGTGCCTACTCTGGCATGGGATGTTGATAG
TGGGGAAGGCTGTGCATGTTTGGGGCGGGGCTATATGGGAGATCTCTGTACCTTTCTCT
TAATTTTGCTGTGAAGCAAAAATGGTTCTAAAAAATCAAATCTTGAAAAGGCACTGAA

FIGURE 3YYYY



Docket No.: CL000858
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121053 TGCCAAGAGCCTGGGGGAAGAGAGGGATGAATCGGTGGAGCAGAGAGGATTTTTAGGCTA
GGGAAACTATTGTGTATGATACTATAATGGTGGATACATGTCATCAGACGTTTGTCCAAA
CCCATAGGATGTACAGACCAACAGTGAACCCTAATGTATACTATGGATTCTGGATGATA
TTGTGAGTATAGGCTCATCACTTGTAAACAGTGCCTACTCTGGCATGGGATGTTGATAG
TGGGGAAGGCTGTGCATGTTTGGGGCGGGGGCTATATGGGAGATCTCTGTACCTTTCTCT
[T, C]
AATTTTGCTGTGAAGCAAAAATGGTTCTAAAAAATCAAATCTGAAAAAGGCACTGAAG
TATAAAATGGAGCAGTATTGGGGACCAATAAACCATCCAGTCTCTCCAGAACTGCAAAAC
TAACTGCTACTACAGCAAGAGAGAGGGGTGAGCAACTACCTGCCTGCAGCGGGGGTAGGG
GGGAGTTGGGGGAAATGGCGGGGGGTGGGGTCCCTGACAGTTTCTCAGAAGTGGGTG
ACGTATTCTGGAGGAGGAGGAGGAGGAGGCAGCATGAGGCAGCAGGCAGGATGCATTTCT

121246 CTCATCACTTGTAAACAGTGCCTACTCTGGCATGGGATGTTGATAGTGGGGAAGGCTGT
GCATGTTTGGGGCGGGGGCTATATGGGAGATCTCTGTACCTTTCTCTTAATTTTGCTGTG
AAGCAAAAATGGTTCTAAAAAATCAAATCTTGA AAAAGGCACTGAAGTATAAAATGGAG
CAGTATTGGGGACCAATAAACCATCCAGTCTCTCCAGAACTGCAAACTAACTGCTACTA
CAGCAAGAGAGAGGGGTGAGCAACTACCTGCCTGCAGCGGGGTAGGGGGAGTTGGGGG
[G, A]
AATGGCGGGGGGTGGGGGTCCCTGACAGTTTCTCAGAAGTGGGTTGACGTATTCTGGAG
GAGGAGGAGGAGGAGGCAGCATGAGGCAGCAGGCAGGATGCATTTCTTGAAGTGGATCAT
GGCCAGGTCTTACAGCTCTCCACTGCCACCTTTGGCAAACATTCCTGGGATCCTGAAG
GCTCAGACAAGGCCCATCCCTCTTATGTTACCATGGGGATTATCTCTTCTCTCTTTCTC
TTTTAGTTTTCTCTCCAAGGAAGGGTTGTCACTCCTTTTCCAAAAGGAAGAAGGACCAAG

121475 AACTGCTACTACAGCAAGAGAGAGGGGTGAGCAACTACCTGCCTGCAGCGGGGTAGGGG
GGAGTTGGGGGAAATGGCGGGGGGTGGGGGTCCCTGACAGTTTCTCAGAAGTGGGTGGA
CGTATTCTGGAGGAGGAGGAGGAGGAGGCAGCATGAGGCAGCAGGCAGGATGCATTTCTT
GAACTGGATCATGGCCAGGTCTTACAGCTCTCCACTGCCACCTTTGGCAAACATTCCT
GGGATCCTGAAGGCTCAGACAAGGCCCATCCCTCTTATGTTACCATGGGGATTATCTCTT
[C, T]
CTCCTTTTCTCTTTTAGTTTTCTCTCCAAGGAAGGGTTGTCACTCCTTTTCCAAAAGGAA
GAAGGACCAAGTGAATGATTTTCAAGGGCACAGTGCTGTTATTTCTCGAGGGAACCTCTG
CCATGTTCTTGAGCATGTTGCTCGTTTTCTCCTTCCCTTCTCTTCTTAGCCCTCTCCCTC
TCGCTCTCTCTACCTCTCCCCCTTTCTTTTTCTTTTATCACAAAGACTACAAAGAGT
ATACATGGTCACTGTAGAGGCCTTGGAAAATGCAGGGGAGTGCAAAGAAGAAAGTAAAT

121715 GGGATCCTGAAGGCTCAGACAAGGCCCATCCCTCTTATGTTACCATGGGGATTATCTCTT
CCTCCTTTTCTCTTTTAGTTTTCTCTCCAAGGAAGGGTTGTCACTCCTTTTCCAAAAGGA
AGAAGGACCAAGTGAATGATTTTCAAGGGCACAGTGCTGTTATTTCTCGAGGGAACCTCT
GCCATGTTCTTGAGCATGTTGCTCGTTTTCTCCTTCCCTTCTCTTCTTAGCCCTCTCCCTC
CTCGCTCTCTCTACCTCTCCCCCTTTCTTTTTCTTTTATCACAAAGACTACAAAGAG
[T, A]
ATACATGGTCACTGTAGAGGCCTTGGAAAATGCAGGGGAGTGCAAAGAAGAAAGTAAAT
CCTGTAAATATCCTTTGTCCAAAGAAATCCACCACTAACACGTTGATAATCGTACTTCTG
AATCTTTTCTCTGCATCTACATTTGGCCCCAATGCCTGGTGCTCCACTGGCCCCCAGTA
CCCCCTCCACCTGCTACCTACCTGTCCAAGTTTCCCTGCCCTCGGGTACTGGCAGGGGT
TGTCACCGTGTCTGGCCACAGCCTGTGCCTTCCCTGTGTTACTCCATCAGCTCCTTCTG

122390 TTCTGCCTCAGAAGGGGGAGTGCTACTGTCTGCTGCTCTAGAGCTGAGGGAGACGGACA
CCACTCTCCCCGGTAACACTAGATTCTCAGGAATAGATACAACACCTTCCAACTGCAGC
TGACACCAGCTGTACATTGTAACAAGACTTTTAAAGATTTAGGAATGTGAGAGAGATATTA
CCACAGCAGTTACATCACATCTGCTTACAGTCTGGCTGTTCTTGGAGCCAGAAATCCA
GGCCTGTTCCAGGGTGTCCAATTGAGCTGTGTCCTTGACCTGCCTCGAGGCAGCTGAAGC
[C, A]
AGCTTGCCCTGACCTCCAGGAGTAGCTGTTGCAGGCAGGCAGCTTAGCTCAAAATGAGAG
AAACTATGGCTAATTTAAACAAAAATGAAAATAATTTTAAAAAGGATATTGGATAGCTAC
CAATCCTTGGGATGGTTGGAAACCCAACTGGGAAGGTACCTTGTTAAAAACAATGACC
AAATCACACCATGGAAGTGGTCCCGAGGAAGCCACTGCTGTGTCTGCCCGGGCATATAC
AGGGCGGTGGCCCTGGATGCTGCTGCAAGAACCATCCTTGTGACTGCTCCTGGAGTGGG

FIGURE 3ZZZZ



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122606 CTGTTCTTGAGCCAGAATTCCAGGCTGTTCCAGGGTGCCAATTGAGCTGTGCCTT
GACCTGCCTCGAGGCAGCTGAAGCCAGCTTGCCCTGACCTCCAGGAGTAGCTGTTGCAGG
CAGGCAGCTTAGCTCAAAATGAGAGAACTATGGCTAATTTAAACAAAATGAAAATAAT
TTTAAAAAGGATATTGGATAGCTACCAAATCCTGGGATGGTTGGAAACCCAACTGGGA
AGGTACCTTGTTAAAAACAATGACCAAATCACACCATGGAACCTGGTCCCGGAGGAAGCCA
[C, T]
TGCTGTGTCTGCCCGGGCATATACAGGGCGGTGGCCCTGGATGCTGCTGCAAGAACCAT
CCTGTGACTGCTCCTGGAGTGGGGCATACCAACATTGGTACCACCATCCCTGGAATGGC
TTCCACAGGGTCCCTGTTTCTTTATATAACATCCAAGATATGTCTGCTCCTGCCTGCCAC
CCCACCTCCCATGGAAGCTCCCGCTGATGCTTTCACTTCCATCTTGATCAAGGGCAAGG
TTTACCTTCCATGCCACCCCACTCAGGGTTCCAGTCCCTCACCTCTGTCTGGAGGACCT

122767 AAACAAAATGAAAATAATTTTAAAAAGGATATTGGATAGCTACCAAATCCTTGGGATGG
TTGGAAACCCAACTGGGAAGGTACCTTGTTAAAAACAATGACCAAATCACACCATGGAA
CTGGTCCCGGAGGAAGCCACTGCTGTGTCTGCCCGGGCATATACAGGGCGGTGGCCCTG
GATGCTGCTGCAAGAACCATCCTTGTGACTGCTCCTGGAGTGGGGCATACCAACATTGGT
ACCACCATCCCTGGAATGGCTTCCACAGGGTCCCTGTTTCTTTATATAACATCCAAGATA
[T, C]
GTCTGCTCCTGCCTGCCACCCACCTCCCATGGAAGCTCCCGCTGATGCTTTCACTTCC
ATCTTGATCAAGGGCAAGGTTTACCTTCCATGCCCACCCCACTCAGGGTCCAGTCCCTC
ACCCTCTGTCTGGAGGACCTAGGAGGATCCAGGACTCTTGAGAGCTGGGCTGTGCACAGG
GGTGAATCACCAGCAGAAAGCTCTGCATCTAGTCTCTTCTCTTGCCTCCAGACTGGAC
GTTTGTCTTCCACCACCCACCCCGCAACCGGAAGACTCTAGGAAGATCTCGTCCCTC

122957 CAAGAACCATCCTTGAGCTGCTCCTGGAGTGGGGCATACCAACATTGGTACCACCATCC
CTGGAATGGCTTCCACAGGGTCCCTGTTTCTTTATATAACATCCAAGATATGTCTGCTCC
TGCTGCCACCCACCTCCCATGGAAGCTCCCGCTGATGCTTTCACTTCCATCTTGATC
AAGGGCAAGGTTTACCTTCCATGCCACCCCACTCAGGGTCCAGTCCCTCACCTCTGT
CGGAGGACCTAGGAGGATCCAGGACTCTTGAGAGCTGGGCTGTGCACAGGTGGTGAATCA
[C, A]
CAGCAGAAAGCTCTGCATCTAGTCTCTTCTCTTGGCCTCCAGACTGGACGTTTTGCTTC
CCACCACCCACCCCGCAACCGGAAGACTCTAGGAAGATCTCGTCCCTCCCACTGTACT
TTTGCTCCAGGCTGAGTGGCCATTCCGCCTTCTCTGTCTGTGTTCTTAACCCGGTCTT
GCCTACTGTCTGGAAGAGGAGAAAGTGGTCTGTAAAGTCTGCCTCTGAGAATCTCCACAC
CTCTTTTCAAGATGGTCTGGGGAGTGGCGGGTGCCAGTGAGACGAAAGAGGAGGACGGAG

122963 CCATCCTTGTGACTGCTCCTGGAGTGGGGCATACCAACATTGGTACCACCATCCCTGGAA
TGGCTTCCACAGGGTCCCTGTTTCTTTATATAACATCCAAGATATGTCTGCTCCTGCCTG
CCACCCACCTCCCATGGAAGCTCCCGCTGATGCTTTCACTTCCATCTTGATCAAGGGC
AAGGTTTACCTTCCATGCCACCCCACTCAGGGTCCAGTCCCTCACCTCTGTCTGGAGG
ACCTAGGAGGATCCAGGACTCTTGAGAGCTGGGCTGTGCACAGGTGGTGAATCACCAGCA
[G, A]
AAAGCTCTGCATCTAGTCTCTTCTCTTGGCCTCCAGACTGGACGTTTTGCTTCCCACCA
CCCACCCCGCAACCGGAAGACTCTAGGAAGATCTCGTCCCTCCCACTGTACTTTTGCT
CCAGGCTGAGTGGCCATTCCGCCTTCTCTGTCTGTGTTCTTAACCCGGTCTTGCTTAC
TGTCTGGAAGAGGAGAAAGTGGTCTGTAAAGTCTGCCTCTGAGAATCTCCACACCTCTT
TCAGAATGGTCTGGGGAGTGGCGGGTGCCAGTGAGACGAAAGAGGAGGACGGAGGACAGA

124458 CTTTTTTGAGACGTAGTCTCACTCTGTTGCCAGGATGGAGTGACGTTACATGATCTCGG
CTCACTGCAAGCTCTGCCTCCCGGGTTCAAGCGATTCCCCTGCCTCAGCCTCCCAAGTAG
CTGGGATTACAGGTACCTGCCACCACCTGGCTGATTTTTGTGTTTTTAGTAGAGACAG
GGTTTACCATATTGGCCAGGCTGGTCTCGAACTCCTGACCTCAAGTGATCCACCTACCT
CTCGGCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGTGCCTGGCCAGTGAGT
[C, G]
CTTCTAAGCAAATCCATTCTAATCAAATGAAGGAACAGTGCTCCTCTTTAATAATCATAA
ATAAGTGATAGATGAATAAGGAAATGAATCATGTATGCATTTATTTGTCCACAACACACA
ATTGGAGCTGGCATTCTCTGGAGGCATTTGTATAAACTTAGATGAGATCACGTCCCCTA
GGATGTCAAGGTACTTGCCCTGATTCTGCCATGAGGCCTCCAATGGAACTTTGTAGGA
GTAGAAAACAGCCAATGTATGTGAAGTCCAAGTTCATTGGCACCTCCCTAGCCTCCTTGC

FIGURE 3AAAAA



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125449 AGCTTGAAAAATATGCTAAAGGAATTTTCTCATTGTAGGTGTTCCGTGCCAGTTCCTT
AGTGCAGGCCTTCCAGTGTAGGGTTTATTTCTGCATGACTTTCTATAAGCTGTATTTCT
CTTCTTATCTAACTTCTCGTTCCTAGTCTAACTAGAAAGTTCATGCATATCCCTTTCTCC
CTTCTCTCCATTTTCTTTTATCTCTGAAACAATTAGGTACACACGTAGCTGGGAAGCCT
TCTTGATGCCTCCAGAAAAATTCTAGATCCCTCAAATATTGTTCTATCTCTTCTTTCT
[G, A]
TACCCCAATTTTTTCTCAATTATGCTCTTAAATTATCCTTCTGAAAGATTTTCTAATTT
TGTTTGCTTCTTGTTGCCTTTTTCTTCTAGTTCACACACCTTTCTGTAAAGATTTCT
TAATGCTTATTTTATTATTATTTATAGTTTTATGTGGACAAGCATCCCTAGATGCTTACA
TTAAAGTATTTGTCTAAAAAAGAAGGAAGGAAGGAAGGAAGGAAGGAAGGAAGGAAG
AAAGAAAGAGAGATAAATATGGAAGAAAGAGAAAAAAGGAAGAAAGGAAGAAAGAAAG

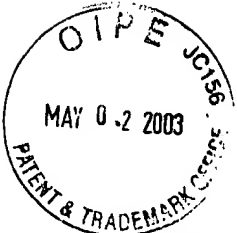
126753 AACATGTCTTCCTTCCGGGTGAACATTACAAAGCTAAAGAAGGGAACCTCACCTTCCCTTG
AGGAGAGCTTGCCTGAACACCAGAGGATTTACCTCTTTCCCCCTCATAATGGAATAATC
ACTGAGCTTTCTGCTAGAATAAAAAAATCATGGGCCGGGCACGGTGGCTCACGCCTGTAA
TCCAGCACTTTGGCAGACCGAGGCGGGTGGATCACTTGAGGTGAGGAGTTCAAGACCAG
CATGGCCAACATGGCGAAACCCCATCTCTACTAAAAATACAATCATAGCTGGGCGTGGC
[G, A]
GTGCGCTCCTGTAATCTCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGG
GAGGCGGAAGTTGCAGTGAGCTGAGTTTGCGCCACTGCACTCCAGCCTGGGCGACAAAGT
GAGACTCTGCCTCAAAAAATAAAAAATAAAAAATAAAAAATAAAAAATAAAAAATAA
TAAAAATAAAAAATAAAAAATAAGACAAAGGAGATGATAAATTAAAGCCTAACATTACTA
TATTCCTTTTACTGAAGAATATGGTTTATATCTGTGGAAGATGAGTTTCTTAATACA

126957 CGGGTGATCACTTGAGGTGAGGAGTTCAAGACCAGCATGGCCAACATGGCGAAACCCCA
TCTCTACTAAAAATACAATCATTAGCTGGGCGTGGCAGTGCGCTCCTGTAATCTCAGCTA
CTCGGAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAAGTTGCAGTGAGCTG
AGTTTGCGCCACTGCACTCCAGCCTGGGCGACAAAGTGAGACTCTGCCTCAAAAAATAA
AATAAAAAATAAAAAATAAAAAATAAAAAATAAAAAATAAAAAATAAAAAATAA
[-, T, G]
ACAAAGGAGATGATAAATTAAAGCCTAACATTACTATATTCCCTTTTACTGAAGAATAT
GGTTTATATCTGTGGAAGATGAGTTTCTTAATACAACCTCAGAATTAGATAGGAGATCA
CAAGGGGTAACCTCCCAAGGAAGGGGAGAGGAAGGGGCTGGGTTAACAGTTCTGGGTC
AGAATAAGAGTTGAGTGGCCATGTGTATTGCAGCAGGTGGAGCTCCCTATACAAGGAAAG
CACTGGGCGGAAAAATGAGCATTTATCCTATTAGAATGGTCTTGTGCCTTCACTCCCTGT

126962 GGATCACTTGAGGTGAGGAGTTCAAGACCAGCATGGCCAACATGGCGAAACCCCATCTCT
ACTAAAAATACAATCATTAGCTGGGCGTGGCAGTGCGCTCCTGTAATCTCAGCTACTCGG
GAGGCTGAGGCAGGAGAATCGCTTGAACCTGGGAGGCGGAAGTTGCAGTGAGCTGAGTTT
GCGCCACTGCACTCCAGCCTGGGCGACAAAGTGAGACTCTGCCTCAAAAAATAAAAAATA
AATAAAAAATAAAAAATAAAAAATAAAAAATAAAAAATAAAAAATAAGACAA
[A, -]
GGAGATGATAAATTAAAGCCTAACATTACTATATTCCCTTTTACTGAAGAATATGGTTT
ATATCTGTGGAAGATGAGTTTCTTAATACAACCTCAGAATTAGATAGGAGATCACAAGG
GGTAACTCCCAAGGAAGGGGAGAGGAAGGGGCTGGGTTAACAGTTCTGGGTCAGAAT
AAGAGTTGAGTGGCCATGTGTATTGCAGCAGGTGGAGCTCCCTATACAAGGAAAGCACTG
GGGCGGAAATGAGCATTTATCCTATTAGAATGGTCTTGTGCCTTCACTCCCTGTGCACT

128567 TTAGTCGGAGTCTCTCTCTGTTGCCAGGCTGGAGTGCAAGTGGTCAATCTTGGCTCGCT
GCAACCTCTGCCTCCCGGGTTCAAGTGATTCTCCCTGCCTCAGTCTCCTAAGTAGCTGGG
ATTACAGACATCTGCCACCATGCCAGCTAATTTTGTATTTTTTAGTAGAGTTGGGGTT
TCCCATGTTGGCCAGGCAGGTCTTGAACCTCCTGACCTCAGCCTCCTGAAGAGCTGGGAT
TACAGGTGTGAGCCAGCATGCCTGGCCTGAGTTTTTATTATTGTGAATTTTATTTTTTT
[T, -, C]
CATCCAGATGCACCTATATTGGTAGTCTAGTGATAAAAAACAATTTACCCATATATACCA
ACATCTTTTTCAAGAACTTTGCATAGTGAAACCAGCAAAGTACTGAACTGGCCAGTCTGT
CATAGGTGTCTTGCAACATGACTCAGAGTCAGAAGCTGGATATAAACTTTTTTCTGTGTG
TGTATATATGATCCATTTGTGTATTCGGCTTTTGAGTGGGACTTTTTCAGTAGGCTTCTT
GAAGGTTCCACTTCACTATTCTCACTGATGTGTGCTTACAGCATCTCTGCCATGGAGATT

FIGURE 3BBBBB



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Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

128567 TTAGTCGGAGTCTCTCTGTGTTGCCAGGCTGGAGTGCAGTGGTGCAATCTTGGCTCGCT
GCAACCTCTGCCTCCCGGGTTCAAGTGATTCTCCCTGCCTCAGTCTCCTAAGTAGCTGGG
ATTACAGACATCTGCCACCATGCCAGCTAATTTTGTATTTTGTAGTAGAGTTGGGGTT
TCCCATGTTGGCCAGGCAGGTCTTGAACCTCCTGACCTCAGCCTCCTGAAGAGCTGGGAT
TACAGGTGTGAGCCAGCATGCCTGGCCTGAGTTTTATTATTTGTGAATTTTATTTT
[T, -, C]
CATCCCAGATGCACCTATATTGGTAGTCTAGTGATAAAAAACAATTTACCCATATATACCA
ACATCTTTTTCAAGAACTTTGCATAGTGAAACCAGCAAAGTACTGAACTGGCCAGTCTGT
CATAGGTGTCTTGCAACATGACTCAGAGTCAGAAGCTGGATATAAACTTTTTCTGTGTG
TGTATATATGATCCATTTGTGTATTGGCTTTTGTAGTGGGACTTTTTCAGTAGGCTTCTT
GAAGGTTCCACTTCACTATTCTCACTGATGTGTGCTTACAGCATCTCTGCCATGGAGATT

128599 GAGTGCAGTGGTGCAATCTTGGCTCGCTGCAACCTCTGCCTCCCGGGTTCAAGTGATTCT
CCCTGCCTCAGTCTCCTAAGTAGCTGGGATTACAGACATCTGCCACCATGCCAGCTAAT
TTTTGTATTTTTAGTAGAGTTGGGGTTTCCCATGTTGGCCAGGCAGGTCTTGAACCTC
TGACCTCAGCCTCCTGAAGAGCTGGGATTACAGGTGTGAGCCAGCATGCCTGGCCTGAGT
TTTTATTATTTGTGAATTTTATTTTTTCCATCCCAGATGCACCTATATTGGTAGTCTAG
[T, G]
GATAAAAAACAATTTACCCATATATACCAACATCTTTTTCAAGAACTTTGCATAGTGAAAC
CAGCAAAGTACTGAACTGGCCAGTCTGTGCATAGGTGTCTTGCAACATGACTCAGAGTCAG
AAGCTGGATATAAACTTTTTCTGTGTGTATATATGATCCATTTGTGTATTTCGGCTTT
TGAGTGGGACTTTTTTCAGTAGGCTTCTTGAAGGTTCCACTTCACTATTCTCACTGATGTG
TGCTTACAGCATCTCTGCCATGGAGATTTTAGGCAGAGAGTGTAAAAGCTCTACTCAT

128843 ATTATTTGTGAATTTTATTTTTTCCATCCCAGATGCACCTATATTGGTAGTCTAGTGAT
AAAAACAATTTACCCATATATACCAACATCTTTTTCAAGAACTTTGCATAGTGAAACCAG
CAAAGTACTGAACTGGCCAGTCTGTGCATAGGTGTCTTGCAACATGACTCAGAGTCAGAAG
CTGGATATAAACTTTTTCTGTGTGTATATATGATCCATTTGTGTATTTCGGCTTTTGA
GTGGGACTTTTTTCAGTAGGCTTCTTGAAGGTTCCACTTCACTATTCTCACTGATGTGTG
[G, A, T]
TACAGCATCTCTGCCATGGAGATTTTAGGCAGAGAGTGTAAAAGCTCTACTCATAGTT
TATAGAATTGCTAGTGCCACAAGGCCATTCAATTGTGGATGATGAAATTATTAGTTATAAG
TGAACCTTCTAAAATAAATCTTGGGAAGAAAACATGTTATAAGAAAATGAAGTCAGTCCTC
TTACTAGGCAGTTCCCATCATCTTTCCATTTTGAAGAAATTATCCTCAGTTCAGATGTATT
ACTATGGTGATGTGTTTGCATTTCAACAAACCAACCAAGCCGTAAACTGAGCTCTGCAT

130388 CGGAAGGATGATGAAAAATGGGACGGGGAGGTGGCTGAGCCTGGGGTTTTGGAAGTAGGA
TGGAATTAATTGGAAGGCAAATAAAAAAGCTTCCAAGATTGTGAGCTGCGACTGTCTGAG
AGCTCAAACAGAGTTGGCAAGAGGAACCAAGGAGAATGAGGACATTTTTTGTCAATTGA
CAATGAGGTATACAATATATCCAGGAAAGGACAACCAGCAGCGACCTCCTGAAGCTAAAC
AGAGATTATCTTAAGCCACATATGAGGGAACATTCTCAATGGCAAAGAGAAGCATTA
[T, C]
CTGGGACTGTCTACGTCTAAGGAAAAATTTGAGCATTTACATTAATAATGGCCTGTAAACA
AGCATTGAATATTAACCAGGCACTGTGCTAAGTGTGTGCACACTGTTTAATCTTCCAAA
CAATCCGATGAGGTGGGATTTCTTATCTCCATTTATAGAGGAAAAAACTAATGCACAG
AGAGGTTGAGAACTTGCCTAAGGTCACTCAGCTATTTAGCAGTGGGGTTGGGATGTGTC
TCAGGCAGTCTTTCCCTAGACTCTGTGCTCTTAAACACTACTATGGTTTTTCAGCAGCAG

131191 CTTTTATAGCAAAGTATGGGTATACACATATTTTCATACACCTACACACACATACACAT
GCAAGACGCGCATTTCTTAAGTCCCTAAAATACCCTGATAAATTAATGCTCCAAACATTC
TCTGAGTGTGACCCTTGGATGTCTAGGAGAAGCAGCCAGGAACACACTTGTAGCCGGG
GCAATGAGTAGTGGTGAATGTTTACCTTGCTGATAAAGTCTCCAGTAGATGATGCAATT
AAGATGCCACGATCTAGCCTTTGTTATACACCTCCTGTCTGCCGTCAAACAAATCCACC
[G, C]
CTGTCCCTTCCCCATCTTCCCTCCTGCCATCTCCTGAAGTCCAGGAACGTCTCCAGCTTC
CTACGTAAGTGTGAGTCTTTTGGCAACCTCAACCTCATTAGATTGCAATTACATTCA
CATCTTAATTTATGACTTAACAAGCATCTCACAACATTTAATTCATTAACTTCACTA
TGCAATTTGAGGAGGAATATTTGAGGAGGAATGGTACTCCCATTTGCCAGCAATTAGATTGA
CTTAATGATCTATGGCGAAATCTCCTTTTGGGCTTTGAACTTTTCATACATTTCTGCAAA

FIGURE 3CCCCC



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132702 TCAGCTTAGAGTTTTTCAGCTTAGAGTCAATTCAGTGTGCGCTTCAGCACATCCAAAGA
GAATATGACCGATGCTACCAGTCTGCTCCTGGACTCCACTGGTATGATTCTTTGCCCC
AGTATCAGTCTAATCCCATTCTAGATGCTTTTTCTTAATGACCCAACAACGACTCCT
TCAGGAGCTGGCATGAGATGAGATTTGTTTGCAGAGATGTATAAAAATTTCAAAGCCCCA
AAGGAGATTTCAACACAGATCATTAAGTCCATCTAATTGTCGTCTACTACCCATTTAGA
[C, T]
GGGACCCTGTTATGCTAACTCCTATCCTGTCTCTTGTGAGTGATACAGTCAACACACAT
GATGATCACAGCACCAGCTCAGACAGGTGTGTTTTAAACAAAAGTGTGTTATAAATGTA
CAGCCTCAGCAGGGAATGTGGGGCGAAGAAACACACAAATACTGGCTAGAGTCGGT
CACAGGTGAAGATGGGGATGACTGTGTTTTCCGTTTCATCCAACATTTTGGCCTGACTC
AGATAATTTTTTTTCCAGCATATTCTGTTTGACACAAGGGAAACGGTGCAAATCCATCAC

133422 GCATTTGGGCTGCAGTCATGGAACCATGCAAGAAACATTCAAAGCATTGGCTAAGCAGGA
TTTTTTTGTGTTTGACCTGGTGTCCACGAACAGGCTTCAGGGAGCCTGAGAACCCTCCT
AGACCACCTGAAAAATCTGAATGCACTTTTCTAGGAAAGAGTTCACAGCGTTTCATCAAA
TTTCTTCCAAGCAGCCAATGACCAGAGAAAGGTTAAAAGTCACTGACACAGTACCGTTTT
CTGTGCATCTATATCCTGAATCCAGGGTGATGCCGCTGACTTGCCTATCTTTCTCCTTTG
[G, C]
TCTTCTAGAAAAAGCAAGTGAGTCAGACCAAGATCCGGGTCTCTCAACCATCCTGTTC
ATCTTGGCCGGCTGCATTGTGTTTGTGACGATCCCTGCTGTCTATCTTAAGTACATCGAG
GGCTGGACGGCCTTGGAGTCCATTACTTTGTGGTGGTCACTCTGACCAGGCTGGGCTTT
GGTGATTTTGTGGCAGGTAAGCACCTGGGCAGGCCAGGCACGTGGGCTCTGGCGGGA
AATAATCTGTTGGCTGTGCTTTTCGCAATCGATAAAAGATGTTGCGGGAGAAGCAAATGA

133447 ATGCAAGAAACATTCAAAGCATTGGCTAAGCAGGATTTTTTTGTTGTTTGACCTGGTGT
CCACGAACAGGCTTCAGGGAGCCTGAGAACCCTCTAGACCATTGAAAAATCTGAATGC
ACTTTCTAGGAAAGAGTTCACAGCGTTCATCAAAATTTCTCCAAGCAGCCAATGACCAG
AGAAAGGTTAAAAGTCACTGACACAGTACCGTTTTCTGTGCATCTATATCCTGAATCCAG
GGTGATGCCGCTGACTTGCCTATCTTTCTCCTTTGGTCTTCTAGAAAAAGCAAGTGAGT
[C, A]
AGACCAAGATCCGGGTCTCTCAACCATCCTGTTCTATCTTGGCCGGCTGCATTGTGTTTG
TGACGATCCCTGTGTCTATCTTTAAGTACATCGAGGGCTGGACGGCCTTGGAGTCCATTT
ACTTTGTGGTGGTCACTCTGACCACGGTGGGCTTTGGTGATTTTGTGGCAGGTAAGCACC
CTGGGCAGGCCAGGCACGTGGGCTCTGGCGGAAAAATAATCTGTTGGCTGTGCTTTTCG
CAATCGATAAAAGATGTTGCGGGAGAAGCAAATGAAGATGACTCAGTGTCACTACTGCTG

133956 CGGGAAAAATAATCTGTTGGCTGTGCTTTTCGCAATCGATAAAAGATGTTGCGGGAGAAG
CAAATGAAGATGACTCAGTGTCACTACTGCTGTGAAGAGGCTCATTTCAAATCCCTAGTC
CTATGTAATATAAATACCATAGGTTTTTTCTGCTATGAAAAGAAAGCCAACCCTTTCCT
TCTCAGGATGCTTATTTCCCTTATCGTCACACAAATTATGCAAGACTAAAGTGAATTTCT
CATTAAATCTTGAACCTCTGAATTGAATTAACCTCTCTAATCCAATGATAAAGGCTGTG
[T, C]
TAGGAAGTGGCACATAGGAACTCAGATGAGATTAGCATAGAATTTGGTCTGCAGTGACC
TGCAGGTTTCAGCTCCTGACTCCAGGTGAGAGCCATTGTCTCTGCAAACGTTGTCTCTGC
ACATGCCCAGATACAAAGCTGAGGACTTTGGTGACTATGGGGAGCTGAGAACTGCCCAGA
GGGAATATAAGCTCATGGATTATGCAGGAGTGTATATACAAGCAATAGCCTTCCCTGTAA
AAATAAATGTGGATGAGCTATGTTAAGGAAGTGAAAAAAAATCATCAATTTTCATCTAG

134132 TCCTTCTCAGGATGCTTATTTCCCTTATCGTCACACAAATTATGCAAGACTAAAGTGAAT
TTCTCATTAATCTTGAACCTCTGAATTGAATTAACCTCTCTAATCCAATGATAAAGGC
TGTGTTAGGAAGTGGCACATAGGAACTCAGATGAGATTAGCATAGAATTTGGTCTGCAG
TGACCTGCAGGTTGAGCTTCTGACTCCAGGTGAGAGCCATTGTCTCTGCAAACGTTGT
CCTGCACATGCCCAGATACAAAGCTGAGGACTTTGGTGACTATGGGGAGCTGAGAACTGC
[C, T]
CAGAGGGAATATAAGCTCATGGATTATGCAGGAGTGTATATACAAGCAATAGCCTTCCCT
GTAAAAATAAATGTGGATGAGCTATGTTAAGGAAGTGAAAAAAAATCATCAATTTTCAT
CTAGGGCCAGGGAATTGCAAATGAAATGAGATTTAGTTTCATATGTGCACCAGTTTCCC
AAAAGTGTGGTAGAAAGGTACGGATAGAAGGAAGAGGCCATCCTTCTCTTTTTCTAATAG
GATAGTTCTAGATGTTTCAGACAAGTGATCAGTTTCTACTACAAGAAGTGAACACTTTGAT

FIGURE 3DDDDD



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Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

136253

ACAGACCAATCTGGAGAATGCATGCCTGAAAAGACTGGAAGTTTATCTCTATCTTTT⁵
AACAGTCTGCGAGTGATAGGGAAGTTGCCAATCATTGGAAAACGATACATTAAACAAGA
GTTGATGGTTGCTGTGATTGACATAGTATGAACTCTACTAGAAATGTAATCAGATCATT
GATCCTGCAGGATTGATTGCTGATTTATTTTGCAGCTGACTCACTTTAGGACAGCCTTAC
AATATTTTCGCAACTCTGTCTGGGAGCACACAGAACTCCGAATCCAGATAAGCAGCTCA
[A, T]
AAAGGGATACTTAGAAGGGTGTGACTGCCTGCTTCAATTGTTTCTTGTTCAGTAGCGCAC
CCTAGTGACCATCTTTGCTGGGTAAATAGTGACTTGCAAAGGTAAATATTTACTCCAGAT
AGCCACAGGAGAAAAGCTACAGATTTCTCTGGCGTAGCACAGAAACGAAATGAACCTCAA
AAACCACTTACTGGTGCAGGAACTCAGATCGTATCCTACAGCTCTAATGATGCAGGAGAG
AGTTGTCTGAAAGGAAAAACCAAAGCAGCTGCACCAAACCGAAGGGGGCTTGGCACAGA

137206

GGGCTTGCAACCTGTTTTGCATGGCTGCCTCCAGCAGTGTCTGTAGGAAGGTTAGAATAA
ATAGGCTAATTATTCAGAATAAATGACTGGTCCCTTCAATGGAACAGCCAGTCAATGCAA
TCAGGCAACTGGCCAATTTGGTTGATGGATTTTACTGTAATCCTTATTTATAAAATAA
AGGGATTGGCCTCAAAGGTCCCTTTTAGTTCTAGTTTATGGTGACTCTAATTACTCAGCC
TAACTGACCCTTTGGAGTAGCACTATGTAAACACCATTCTCAGTTAGCATTAAATCACT
[G, T, A]
TTGCTTGCAATCAAATCCCAGTAATGCCATTAAAGCTAATTTTACTTTTACACATCCACT
TGCTCTTAGTAAATGTATGGGTGCTTAAGATGGAATGGTTCCAAGAATTCCAAACCAT
AGGGGGTGGTATGATTATATTTGATTTTATTAAATAAATTTAGAGAAGTTTAAAGAAA
AACAAATGACAACCAAGCCTGATCTGTTGCTGCTGTAGTTTCAAGTTATTCATCCTTAACGC
TCAGGTCAAGCATTAGTAGGTCAAGTTGGCCACTGGCGTTTTTTATTTCTGGTATTAAGG

137313

CCAGTCAATGCAATCAGGCAACTGGCCAATTTGGTTTGATGGATTTTACTGTAATCCTT
ATTTATAAAATAAAGGGATTGGCCTCAAAGGTCCCTTTTAGTTCTAGTTTATGGTGACTC
TAATTACTCAGCCTAACTGACCCTTTGGAGTAGCACTATGTAAACACCATTCTCAGTTA
GCATTAATCACTATTGCTTGCAATCAAATCCCAGTAATGCCATTAAAGCTAATTTTACT
TTCACACATCCACTTGTCTCTTAGTAAATGTATGGGTGCTTAAGATGGAATGGTTCCAA
[C, A, G]
AATTCCAAACCATAGGGGGTGGTATGATTATATTTGATTTTTATTAAATAAATTTAGAG
AAGTTTAAAGAAAAACAATGACAACCAAGCCTGATCTGTTGCTGCTAGTTTCAAGTTAT
TCATCCTTAACGCTCAGGTCAAGCATTAGTAGGTCAAGTTGGCCACTGGCGTTTTTTATT
TCTGGTATTAAGGTAGTGGTCAAGAATCGAGGGAAGTAAAGCCTTAAGTTAGGCTTTTT
TGGGTAAGGGATGGGTACCCCCCTTGCCCTCTAACCCCGGTCCACCTTGTAACACAGCAA

137335

TGGCCAATTTGGTTTGATGGATTTTACTGTAATCCTTATTTATAAAATAAAGGGATTGG
CCTCAAAGGTCCCTTTTAGTTCTAGTTTATGGTGACTCTAATTACTCAGCCTAACTGACC
CTTTGGAGTAGCACTATGTAAACACCATTCTCAGTTAGCATTAATCACTATTGCTTGC
ATCAAATCCCAGTAATGCCATTAAAGCTAATTTTACTTTTACACATCCACTTGTCTCTT
AGTAAATGTATGGGTGCTTAAGATGGAATGGTTCCAAGAATTCCAAACCATAGGGGGTG
[G, A]
TATGATTATATTTGATTTTTATTAAATAAATTTAGAGAAGTTTAAAGAAAAACAATGAC
AACCAGGCCTGATCTGTTGCTGCTAGTTTCAAGTTATTCATCCTTAACGCTCAGGTCAA
GCATTAGTAGGTCAAGTTGGCCACTGGCGTTTTTTATTTCTGGTATTAAGGTTAGTGGTC
AAGAATCGAGGGAAGTAAAGCCTTAAGTTAGGCTTTTTTGGGTAAGGGATGGGTACCCCC
CTTGCCCTCTAACCCCGGTCCACCTTGTAACACAGCAAACCTAACAGCTGAGTGTTAAACA

137951

TTCACTACATGGAATGGAATATGTGTTCTCTGCAAAGACCATATGCTAGATCATGGTTAA
AGTAACATTTGGTTGTTTTTCAGGGGGAAACGCTGGCATCAATTATCGGGAGTGGTATAAG
CCCCTAGTGTGGTTTGGATCCTTGTGGCCTTGCCCTACTTTGCAGCTGTCCTCAGTATG
ATCCGAGATTGGCTACGGGTTCTGTCCAAAAAGACAAAAGAAGAGGTAGGACCCCTTCT
AACCCATATGAATGTTCTGAGAACAGATGAGCTTGTGTCCAGAATTGCCTGTCTCTGTCC
[T, C]
GTGGGCTGGAGTGTCTTCTGGCTCGGTTTTGCAGGGGGAGCGGGGGCGGGTCATAGGCTT
CCTCATGTTGAATCAGTCTTCAAAGCTAAGGAGAATAGAATACAGTTATTTCTGGATTC
TTTTTTTGGCAGGTGAGAAAATATGGTGATTTCGTTTACCAGCCCATAAATCCTGGAAAAA
CTAGTAAACAACAGCTGATTTTTAAAAAATGAAAATGAAAATAAATAGGAGAGGTAGACT
ATGGCTGAGTGTGTGTGGGGGGGTGCAGCCTGTCCTTCCGGTCTCAGGGTCTGTGCAG

FIGURE 3EEEE



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- 138206 CCTGAGAACAGATGAGCTTGTGTCCAGAATTGCCTGTCTCTGTCTGTGGGCTGGAGTGT
TTCTGGCTCGGTTTTGCAGGGGGAGCGGGGGCGGGTCATAGGCTTCCTCATGTTGAATC
AGTCCTTCAAAGCTAAGGAGAATAGAATACAGTTATTTCTGGATTCTTTTTTGGCAGGT
GAGAAAATATGGTGATTCTGTTTACCAGCCCATAAATCCTGGAAAACTAGTAAACAACAG
CTGATTTTAAAAAATGAAAATGAAAATAAATAGGAGAGGTAGACTATGGCTGAGTGTGT
[G, C]
TGTGGGGGGGTGCAGCCTGTCTTCCGGTCTCAGGGTCTGTGCAGAAAGGCAGTTGAACG
CCAAGAATCTTTCCCTGATTTCAGTAAGAACTGAAATCATCGAACATTGACCAGCTACGGG
GAAGTGAGCCCAATGGGCCTCTTTCACTTATCCCCTCTTGGTTGTACATCCATAGAGAC
AAATATACATCCCTGAGGAAGGGCCGTGCATGTAACCTTACATGAAGGGAAGTAAAGGAA
GACATATGAAGGAAAGATAGATTTTGTGATTAAAAATAAATATTTCATGTAGCTCTCTTA
- 138207 CTGAGAACAGATGAGCTTGTGTCCAGAATTGCCTGTCTCTGTCTGTGGGCTGGAGTGT
TCTGGCTCGGTTTTGCAGGGGGAGCGGGGGCGGGTCATAGGCTTCCTCATGTTGAATCA
GTCCCTTCAAAGCTAAGGAGAATAGAATACAGTTATTTCTGGATTCTTTTTTGGCAGGTG
AGAAAATATGGTGATTCTGTTTACCAGCCCATAAATCCTGGAAAACTAGTAAACAACAGC
TGATTTTAAAAAATGAAAATGAAAATAAATAGGAGAGGTAGACTATGGCTGAGTGTGTG
[T, G]
GTGGGGGGGTGCAGCCTGTCTTCCGGTCTCAGGGTCTGTGCAGAAAGGCAGTTGAACGC
CAAGAATCTTTCCCTGATTTCAGTAAGAACTGAAATCATCGAACATTGACCAGCTACGGGG
AAGTGAGCCCAATGGGCCTCTTTCACTTATCCCCTCTTGGTTGTACATCCATAGAGACA
AATATACATCCCTGAGGAAGGGCCGTGCATGTAACCTTACATGAAGGGAAGTAAAGGAAG
ACATATGAAGGAAAGATAGATTTTGTGATTAAAAATAAATATTTCATGTAGCTCTCTTAG
- 138210 AGAACAGATGAGCTTGTGTCCAGAATTGCCTGTCTCTGTCTGTGGGCTGGAGTGT
GGCTCGGTTTTGCAGGGGGAGCGGGGGCGGGTCATAGGCTTCCTCATGTTGAATCAGTC
CTTCAAAGCTAAGGAGAATAGAATACAGTTATTTCTGGATTCTTTTTTGGCAGGTGAGA
AAATATGGTGATTCTGTTTACCAGCCCATAAATCCTGGAAAACTAGTAAACAACAGCTGA
TTTTTAAAAAATGAAAATGAAAATAAATAGGAGAGGTAGACTATGGCTGAGTGTGTGTG
[-, G]
GGGGGGGTGCAGCCTGTCTTCCGGTCTCAGGGTCTGTGCAGAAAGGCAGTTGAACGCCAA
GAATCTTTCCCTGATTTCAGTAAGAACTGAAATCATCGAACATTGACCAGCTACGGGGGAG
TGAGCCCAATGGGCCTCTTTCACTTATCCCCTCTTGGTTGTACATCCATAGAGACAAAT
ATACATCCCTGAGGAAGGGCCGTGCATGTAACCTTACATGAAGGGAAGTAAAGGAAGACA
TATGAAGGAAAGATAGATTTTGTGATTAAAAATAAATATTTCATGTAGCTCTCTTAGGAA
- 138805 TAGGAAGAGAGGAAAAGAAAGGAGGAAGGCCAAGGAAGGAGAAAAAAGAGCTAAAAGA
AAGGAAGGGAGATAAGAAAAACCAAAGAAATAGAGGGCCAGCCTCTGTTTGCTTCATTCT
GTATAAAAGGCCCCAGGAGAAAGTTGCTGAATGGAGAGATTTCCACATCAGTTTCTTGG
GCCCATATGCTAATTTTCTGGTTTATATAAGTAAGCCAGGAAAGTAAGCAATGCAATTT
CCAGACCGGTTCCCAGACAGCTAACTGACCTGCTGAAAATCAGCTATAACAAAGAGAA
[G, C]
GGAACAACATGAATATTGACTTTCTGGATGCACAAATTTGAGTTCTTCATTGTCAGAGG
GAAGCATGGGACTTATACTGTCTGCCCTGTTTATTAAGAGCCAAGAAATTTGGTGCTGAT
CCTCAGGCAAACTCCACTCTAAGGAGGCCTGTTCTGTGGGCTTTGTCAGAAATAGGCCGT
CTTCTGCAACCTGACTGGGGGAAGTGGGTTACCAGGTGCCCTGGAGCATCTTCTTAAAC
CAGGGAAAGCCCCACAGCACATGACCATAGCATGGCCAGATAGGGTGGCCACCCATCCC
- 140339 ACCTCCAGACTCACCAAGAGGAAAAACAAGGACCTCAAAAAGACCTTGCCCGAGGACGTT
CAGAAAATCTACAAGACCTTCCGGAATTACTCCCTGGACGAGGAGAAGAAAGAGGAGGAG
ACGGAAGAGATGTGTAACCTCAGACAACTCCAGCACAGCCATGCTGACGGACTGTATCCAG
CAGCACGCTGAGTTGGAGAACGGAATGATACCCACGGACACCAAGACCGGGAGCCGGAG
AACAACTCATTACTTGAAGACAGAACTAAATGTGAAGGACATTGGTCTTGGACTGAGCG
[-, T]
TGTGTGTGTGTGTGTGTGTGTGTTTTTAATATTACACTGAGACATGTGCCTTAAACAGA
CTTTTGTAGTCCAAAATTACATAGCATTGAAGAATATATTTCACTGTGCCATAAACAAGT
AAAGCTTGCTCTGCCAAAAGGAATCAGAGAACAAGAACTTCATTTTCAGATAGCAAACGCA
GGACACACCAAGAGTGTCCGTGCACGTAGCCGTTCTGGCCGTACATGTTAAGGGCATTT
CAGTGGCAGTGCTGTACCCCTGGGCAGTGCTACCTGGGCACACACGTAGACAAGGGCAGC

FIGURE 3FFFFF



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140340

CCTCCAGACTCACCAAGAGGAAAAACAAGGACCTCAAAAAGACCTTGCCCGAGGACGTTT
AGAAAATCTACAAGACCTTCCGGAATTACTCCCTGGACGAGGAGAAGAAAGAGGAGGAGA
CGGAAAAGATGTGTAACCTCAGACAACCTCCAGCACAGCCATGCTGACGGACTGTATCCAGC
AGCACGCTGAGTTGGAGAACGGAATGATACCCACGGACACCAAAGACCGGGAGCCGGAGA
ACAACTCATTACTGAAGACAGAACTAAATGTGAAGGACATTGGTCTTGACTGAGCGT
[-, G, T]
GT
TTTTTAGTCCAAAATTACATAGCATTGAAGAATATATTTCACTGTGCCATAAACAACTGA
AAGCTTGCTCTGCCAAAAGGAATCAGAGAACAAAGAACTTCATTTAGATAGCAAACGCAG
GACACACCAAGAGTGTCCGTGCACGTAGCCGGTTCTGGCCGTACATGTTAAGGGCATTTC
AGTGGCAGTGCTGTACCCCTGGGCAGTGCTACCTGGGCACACACGTAGACAAGGGCAGCT

140360

AAAAACAAGGACCTCAAAAAGACCTTGCCCGAGGACGTTGAGAAAATCTACAAGACCTTC
CGGAATTACTCCCTGGACGAGGAGAAGAAAGAGGAGGAGACGGAAAAGATGTGTAACCTCA
GACAACTCCAGCACAGCCATGCTGACGGACTGTATCCAGCAGCACGCTGAGTTGGAGAAC
GGAATGATACCCACGGACACCAAAGACCGGGAGCCGGAGAACAACTCATTACTTGAAGAC
AGAACTAAATGTGAAGGACATTGGTCTTGACTGAGCGTTGTGTGTGTGTGTGTGTGTGT
[-, T]
GTTTTTAATATTCACACTGAGACATGTGCCTTAAACAGACTTTTTAGTCCAAAATTACAT
AGCATTGAAGAATATATTTCACTGTGCCATAAACAACTGAAAGCTTGCTCTGCCAAAAGG
AATCAGAGAACAAGAACTTCATTTAGATAGCAAACGCAGGACACACCAAGAGTGTCCGT
GCACGTAGCCCGTTCTGGCCGTACATGTTAAGGGCATTTCAGTGGCAGTGCTGTACCCCT
GGGCAGTGCTACCTGGGCACACACGTAGACAAGGGCAGCTATTCTTAGACCAGCCTCCT

140366

AAGGACCTCAAAAAGACCTTGCCCGAGGACGTTGAGAAAATCTACAAGACCTTCCGGAAT
TACTCCCTGGACGAGGAGAAGAAAGAGGAGGAGACGGAAAAGATGTGTAACCTCAGACAAC
TCCAGCACAGCCATGCTGACGGACTGTATCCAGCAGCACGCTGAGTTGGAGAACGGAATG
ATACCCACGGACACCAAAGACCGGGAGCCGGAGAACAACTCATTACTTGAAGACAGAAAC
TAAATGTGAAGGACATTGGTCTTGACTGAGCGTTGTGTGTGTGTGTGTGTGTGTGTGT
[T, -]
AATATTCACACTGAGACATGTGCCTTAAACAGACTTTTTAGTCCAAAATTACATAGCATT
GAAGAATATATTTCACTGTGCCATAAACAACTGAAAGCTTGCTCTGCCAAAAGGAATCAG
AGAACAAGAACTTCATTTAGATAGCAAACGCAGGACACACCAAGAGTGTCCGTGCACGT
AGCCGGTTCTGGCCGTACATGTTAAGGGCATTTCAGTGGCAGTGCTGTACCCCTGGGCAG
TGCTACCTGGGCACACACGTAGACAAGGGCAGCTATTCTTAGACCAGCCTCCTGAAAGA

141183

TTGGAAGCAGATCAGAGCACACGTACGAAAAGGTGCAATTGCTTTTCTCATGACAAAAGA
AAAAAATAATCACAAACACATCACACTGTGGATATACCTTAACCAATGACAGAAGCCT
GCTGAGTTTGGTCTTTCTCACAGGGGTAGGTAGTCCACATGAAC TGCCGAGCAGTGGTGA
AAACATGACATCAACTGCTGCGTGGTTAAAGGCCAATCATGCATTTTCTCAGTGGGTGC
AATGGTGACAATAAACTGATTTGGAATGTCCATGTACTTTGGTTATAACTTGTTTTGAT
[A, G]
AGAGGGGTAGAAATACCAAAACAATTGCCTTGATGATGCCAGTGGCTTGCTGTTCTGTCT
TAGCTGATCCTACATTTTACAAAAGTAGACATCCTGCATTTCTGAGACACACTGAGGAG
GACCATGGCATCTTCCATCTCAGGGCTTTTGTCCCTTGGGTGTCTTAGGGTAGACATA
GTGATAAGATCCAATCTCGCTATCTCCAAACAAAAGAAAATGTACCCCTTGACAGTAA
GCTTGAAATGTTTTATTGCTTGACGCGTAAGTGCCATTAATCCATTTAACAATGATAC

141545

AGCTGATCCTACATTTTACAAAAGTAGACATCCTGCATTTCTGAGACACACTGAGGAGG
ACCATGGCATCTTCCATCTCAGGGCTTTTGTCCCTTGGGTGTCTTAGGGTAGACATAG
TGATAAGATCCAATCTCGCTATCTCCAAACAAAAGAAAATGTACCCCTTGACAGTAA
CTTGAAATGTTTTATTGCTTGACGCGTAAGTGCCATTAATCCATTTAACAATGATACT
TAGAAATATTTAAATATTTTCACTTTTATGTTTGGGCATTCTTTATTCTGAAAA
[A, T]
GTCACCACTGCTCCTTGCTTGTCTTACATCTCACATCGGTTACTCACTAAAACCTGGAAC
ACCTAGACTGATTGTTCCAGGCAAACGATAAGCTAACACATCATAATTATGATTGGTC
TGTGAGGCTAGAACATCCCGCAGAGGAAAGTCCGGGAATGGCTAGTCATAGGTTGCATGA
TGATTTTAAATGGGTGTGTATCAGAAAGGGGAAAATACATACTCCTGTGTATGCCTCAGT
CTTTATCATAATTGGCTGGTTCACAGCTAGCTCTTGGGCCACACGTGAAAGCATTGGA

FIGURE 3GGGGG



Docket No.: CL000858
Serial No.: 09/729,920
Inventors: GUEGLER et al.
Title: ISOLATED HUMAN TRANSPORTER...

- 142316 TTGTACCCACGACATCCTCAACCACTGGTACCATGGAAGACCTGTCCCTGCCCATTCTC
AAAAATGCACAGCTCTTCCCTGCCTGGAGCACATGAAGTCCCATCTCCCTGTCCCAGAC
CTTTAGGCTCTGTTGAAGTTCTGGCATTGCTTATGAGACCTTCCCTGTCCAAGGAAGGTC
TAAGTCAACTCCTCCATTGGACTGGAGATGAGGCTCACTGGTGACATCCTGTGTCGACTC
AGTAATAAATAGTCACTTGGGAGGCGATGTTTATGCAGGTGTGGATGTTGAGTTTACTA
[C, T]
GGGAATCATTCCAGCCTGACAAAATGTGTTTTAAGGAATAGGTAGATAACTGGGACTTCC
TCTGTTATTCTAACAAAGTCGAAGCTTCCCTAATTAACTGTCCATGGATCTCACTTATTG
GTTTCCACTCTGTGTTATCTGGTACGTTCTTTGTAGCAGTGTGTTAAAAATCCAGGCCCT
ACGGCCAAATCTGGCAGAGGCTTCCCTCTCATTATCCAGTGCCTTCTGTGGGCCAGGCA
CAGGATTAGGCATTTATGAACGTCAGCTCATTGAACTTCACGACACTATGTGGGAAGT
- 142436 CTTTAGGCTCTGTTGAAGTTCTGGCATTGCTTATGAGACCTTCCCTGTCCAAGGAAGGTC
TAAGTCAACTCCTCCATTGGACTGGAGATGAGGCTCACTGGTGACATCCTGTGTCGACTC
AGTAATAAATAGTCACTTGGGAGGCGATGTTTATGCAGGTGTGGATGTTGAGTTTACTA
TGGGAATCATTCCAGCCTGACAAAATGTGTTTTAAGGAATAGGTAGATAACTGGGACTTC
CTCTGTTATTCTAACAAAGTCGAAGCTTCCCTAATTAACTGTCCATGGATCTCACTTATT
[T, C, G]
GTTTCCACTCTGTGTTATCTGGTACGTTCTTTGTAGCAGTGTGTTAAAAATCCAGGCCCT
ACGGCCAAATCTGGCAGAGGCTTCCCTCTCATTATCCAGTGCCTTCTGTGGGCCAGGCA
CAGGATTAGGCATTTATGAACGTCAGCTCATTGAACTTCACGACACTATGTGGGAAGT
ATTTGCAAAACCCATTATATACACAAGGACACAGAGGCTCAGGGAAGCTATGTTATTATC
CAATGGCACACAGCAAGAAAGTGGTAGAGCTGGTATTCAAAGTCTGACCAAGTCTGCTT
- 142719 ATGGATCTCACTTATTTGGTTTTCACTCTGTGTTATCTGGTACGTTCTTTGTAGCAGTGT
GTTAAAAATCCAGGCCCTACGGCCAAATCTGGCAGAGGCTTCCCTCTCATTATCCAGTG
CCTTCTGTGGGCCAGGCACAGGATTAGGCATTTATGAACGTCAGCTCATTGAACTTCA
CGACACTATGTGGGAAGTATTTGCAAACCCATTATATACACAAGGACACAGAGGCTCAGG
GAAGCTATGTTATTTATCCAATGGCACACAGCAAGAAAGTGGTAGAGCTGGTATTCAAAG
[G, T]
CTGACCAAAAGTCTGCTTTCAACTTCACTACAGTGTCTGTGTCATGCATCCTTGTGATTGT
GTGTGTTTGTGTGTATGTGTGCTTTCTAGCTTCAATGGACACAGCTTACAGATGTGGGGA
GCAGATATGGTGGAAATCTCCACCACCAAGAGGGCACAAGGTCTTTGTGTAACATGGCTC
AAAGGGTTGCCCCTGACACACCTACTGTACATTTATTTGGTTTTGGAAATTTTGTATGT
GGCACCCCTTTAAAAAATGCCCTTTGAAAGCACTCTTTTGCACTTTACTTGCTAACTTTGT
- 142779 GTTAAAAATCCAGGCCCTACGGCCAAATCTGGCAGAGGCTTCCCTCTCATTATCCAGTG
CCTTCTGTGGGCCAGGCACAGGATTAGGCATTTATGAACGTCAGCTCATTGAACTTCA
CGACACTATGTGGGAAGTATTTGCAAACCCATTATATACACAAGGACACAGAGGCTCAGG
GAAGCTATGTTATTTATCCAATGGCACACAGCAAGAAAGTGGTAGAGCTGGTATTCAAAG
TCTGACCAAAAGTCTGCTTTCAACTTCACTACAGTGTCTGTGTCATGCATCCTTGTGATTG
[T, C]
GTGTGTTTGTGTGTATGTGTGCTTTCTAGCTTCAATGGACACAGCTTACAGATGTGGGGA
GCAGATATGGTGGAAATCTCCACCACCAAGAGGGCACAAGGTCTTTGTGTAACATGGCTC
AAAGGGTTGCCCCTGACACACCTACTGTACATTTATTTGGTTTTGGAAATTTTGTATGT
GGCACCCCTTTAAAAAATGCCCTTTGAAAGCACTCTTTTGCACTTTACTTGCTAACTTTGT
AGAAACTCTGCATACAGCAGGAATAAAATAGTTCAAAGCACTAAGCTGCATACTTACCA
- 142931 TATATACACAAGGACACAGAGGCTCAGGGAAGCTATGTTATTTATCCAATGGCACACAGC
AAGAAAGTGGTAGAGCTGGTATTCAAAGTCTGACCAAAAGTCTGCTTTCAACTTCACTACA
GTGTCTGTGTCATGCATCCTTGTGATTGTGTGTTTGTGTGTATGTGTGCTTTCTAGC
TTCATGGACACAGCTTACAGATGTGGGGAGCAGATATGGTGGAAATCTCCACCACCAAGAG
GGCACAAAGGTCTTTGTGTAACATGGCTCAAAGGGTTGCCCTGCAGACACCTACTGTAC
[A, C]
TTTATTTGGTTTTTGGAAATTTTGTATGTGGCACCCCTTTAAAAAATGCCCTTTGAAAGCAC
TCTTTTGCACTTTACTTGCTAACTTTGTAGAACTCTGCATACAGCAGGAATAAAATAGT
TCAAAGCACTAAGCTGCATACTTACCAATGGAACAGGTGCATGTGTTGGTATGTGCAT
AGATGCTTCCCCAAATGAGTCAAATCAGTCACACAGAGGGATCAAACATAACCTTGGGCT
GGGGGTGGGAAAATTTTCTACATAACCCATTCCCTGAGACATTTGGCCAAGAATGTGATG

FIGURE 3HHHHH